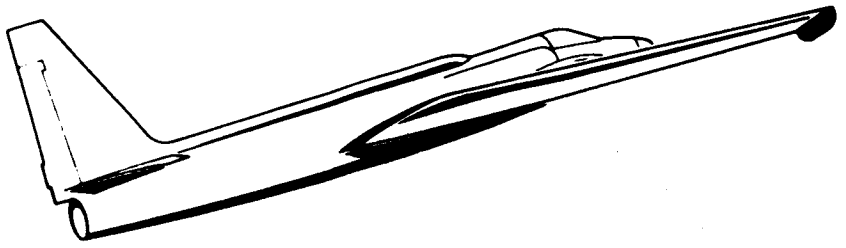
Airborne Instrumentation Research Project

Summary Catalog #18

Period:

1 October 1980 - 30 September 1981

Flights: 81-001 through 81-180



NASA
National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, California 94035

Airborne Missions and Applications Division

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FOREWORD

Summary catalogs are published by the Airborne Instrumentation Research Project (AIRP) located at NASA/Ames Research Center. Each catalog describes the data collected by high altitude U-2 aircraft operated out of Ames Research Center. This eighteenth catalog covers the period of 1 October 1980 through 30 September 1981. No cumulative catalogs are planned.

The catalog is assembled from key elements of the Flight Summary Report (FSR) published for each data collection flight. These elements are: a Data Summary page, a Flight Summary page, and a Track Map depicting the ground track of the aircraft while various sensor systems collected data.

Imagery data collected by the Project is placed in the public domain and is available through the EROS Data Center, Sioux Falls, South Dakota 57198. Information on any data flight or other Project activity may be obtained by contacting the AIRP Operational Support Section:

AIRP Operational Support Section
Mail Stop: 240-12
NASA/Ames Research Center
Moffett Field, California 94035
Telephone: (415) 965-6252
FTS: 448-6252

1. AMES RESEARCH CENTER, AIRBORNE INSTRUMENTATION RESEARCH PROJECT (AIRP).

1.1 AIRP Description.

In April 1971, NASA, under a loan agreement with the United States Air Force, acquired two U-2 high altitude aircraft and established the Ames-Earth Resources Aircraft Project (ERAP). The Project became operational with the first data collection flight on 31 August 1971. In June 1975, the Project name was changed to Airborne Instrumentation Research Project (AIRP).

The objectives of the Project are:

- Collect underflight data in support of LANDSAT and other NASA satellite investigations.
- Support other general Earth Resources programs in conjunction with various government agencies.
- Collect data for disaster assessment.
- Serve as a platform to conduct observations in astronomy, high altitude atmospheric physics, and geophysics.
- Provide sensor definition and evaluation in support of spacecraft programs (NIMBUS, EOS, SEOS, etc.).
- Develop techniques in the analysis, interpretation, and processing of remote sensor data.

The Project supports NASA's Earth Observations Program for the NASA Headquarters Office of Space and Terrestrial Applications (OSTA). Coordination of activities between the Ames-AIRP and other functions or components of the Earth Observations Program are maintained through OSTA.

Aircraft maintenance, pilots, operational and sensor support are provided to the Project by Lockheed Aircraft Corporation under contract to NASA. Data Handling activities of the Project are conducted by Analytical Technology Applications Corporation (ATAC). The AIRP Operational Support Section, staffed by ATAC, performs flight documentation and provides technical support to other Project activities. A computerized Image Selection System (ISS) provides a geographically based retrieval capability for identifying specific frames of U-2 photography. Users of this catalog desiring such information may contact the Operational Support Section for this service.

1.2 U-2 Aircraft Operational Characteristics.

The U-2 is a single place aircraft designed for high altitude, long range operation. Operational altitude of the U-2 is 60,000 to 70,000 feet. Due to aerodynamic characteristics, the U-2 is a constant Mach speed (0.69) aircraft which maintains a flight profile of 392-400 knots TAS at cruise altitude. Normal maximum endurance is approximately 6.5 hours providing a range of 2500 nautical miles.

At normal cruise altitude of 65,000 feet, the U-2 is essentially above all atmospheric turbulence or cross wind

1.2 --Continued.

factors offering an exceptionally stable platform for sensor operation. The primary airborne navigation equipment for the aircraft is an optical view sight system, providing the pilot visual coverage below the aircraft for flight line reference. The aircraft also carries standard VOR/ADF equipment for navigation to the area of interest.

The main operating base of the aircraft is Ames Research Center, Moffett Field, California. To satisfy flight requirements outside the normal operating range of the aircraft, periodic deployments are conducted to various staging bases around the United States. For eastern U.S. flight requirements, an aircraft and support personnel are staged to Wallops Flight Center, Virginia, to conduct data flights. Except for very special circumstances, all U-2 photographic coverage is restricted to the land areas and adjacent coastal waters of the United States.

1.3 AIRP Sensor Systems.

The active photographic and non-photographic sensor systems available to the Project during the catalog period are described in Tables 1-1 and 1-2. The data annotation formats for the Vinten Camera System, RC-10 Camera, and HR-732 Camera imagery are illustrated by Figures 1-1, 1-2, and 1-3 respectively.

Table 1-1. Ames-AIRP Photographic Sensor Systems

System/Configuration	Sensor Type	Sensor ID	Lens Data	Format (Inches)	Coverage per Frame @ 65,000' MSL (Nautical Miles)	Nominal Resolution (GRD-Feet)	Remarks
Vinten System A	Vinten (4)	001 002 003 004	1-3/4 in. f/2.8 (4)	2-1/4 x 2-3/16 (4)	14 x 14	30-50	Filtration - 475-575 nm 580-680 nm 690-760 nm (Color IR) 510-900 nm LANDSAT RBV Simulation
I^2 Multispectral Camera	I^2 Mark 1	005	100 mm f/2.8 (4)	3.5 x 3.5 (4 images)	9 x 9	20-30	4 Spectral Bands 440-560 nm 540-620 nm 630-700 nm 760-900 nm
HR-732	HR-732	009,037, 038,039	24 in. f/8.0	9 x 18	4 x 8	2-8	HR-732 Camera may be used as a single camera system.
Vinten System B	Vinten (4)	011 012 013 014	1-3/4 in. f/2.8 (4)	2-1/4 x 2-3/16 (4)	14 x 14	30-50	Identical to Vinten System A.
RC-10 Camera	Wild Heerbrug RC-10	017,023, 031,033, 035,036	6 in. f/4.0	9 x 9	16 x 16	15-25	Metric Camera; any RC-10 Camera may be used singularly or with either Vinten System.
A-3 Configuration	HR-732	018	24 in. (f/8.0)	9 x 18	4 x 8	2-8	Three vertical cameras provide multispectral or multiemulsion capability.
	HR-732	019	24 in. (f/8.0)	9 x 18	4 x 8	2-8	
	HR-732	020	24 in. (f/8.0)	9 x 18	4 x 8	2-8	
RC-10 Camera	Wild Heerbrug RC-10	026,034	12 in. f/5.6	9 x 9	8 x 8	8-16	Metric Camera; either RC-10 Camera may be used singularly or with either Vinten System.

Table 1-1. --Continued

System/Configuration	Sensor Type	Sensor ID	Lens Data	Format (Inches)	Coverage per Frame @ 65,000' MSL (Nautical Miles)	Nominal Resolution (GRD-Feet)	Remarks
Optical Bar Panoramic	ITEK KA-80A	029	24 in. f/3.5	4.5 x 50	2 x 24 (120° scan)	1-5	High resolution, wide area coverage; mono or stereo mode operation.
Dual RC-10	RC-10	017,023, 031,033, 035,036	6 in. f/4.0 6 in. f/4.0 6 in. f/4.0	9 x 9	16 x 16	15-25	Two camera system; any two RC-10 cameras may be combined to provide a dual scale and/or dual emulsion capability.
	RC-10	026,034	12 in. f/5.6	9 x 9	8 x 8	8-16	
A-4 Configuration	RC-10	017,023, 031,033, 035,036, 026,034	6 in. f/4.0 6 in. f/4.0 6 in. f/4.0 12 in. f/5.6	9 x 9 9 x 9 9 x 9 9 x 9	16 x 16 16 x 16 16 x 16 8 x 8	15-25 15-25 15-25 8-16	Dual scale system with option for 6 or 12 inch focal length lens on RC-10 camera; provides dual scale and multi-emulsion capability.
	HR-732	009,037, 038,039	24 in. f/8.0	9 x 10	4 x 8	2-8	
Hycon Panoramic Camera	HP-307	046	3 in. f/2.8	2-1/4 x 7	8 x 47 (130° scan)	20-40	Wide area coverage; used as tracking camera for Infrared Radiometer.
Research Camera System	RCS	055,056	24 in. f/13.5 (2 lens)	2-3/8x 29-3/4 (2 rolls)	1.1 x 11 (70° scan)	3/4-2	High resolution camera system consisting of two rolls of film and two lenses. Cameras are mounted at 26° convergence angle for stereo viewing.

Table 1-2. Ames-AIRP Non-Photographic Sensor Systems

System/Configuration	Sensor Type	Sensor ID	Crosstrack Coverage @ 65000' MSL (Nautical Miles)	Nominal Resolution (GRD-feet)	Remarks
Aerosol Particulate Sampler	ARC Experimental	024	-	-	Collects high altitude aerosol particles.
Ocean Color Scanner	GSFC Satellite Prototype for Nimbus-G	027	21 swath (90° scan)	3.79 mrad IFOV	10 channel multispectral scanner. Data recorded on magnetic tape in analog form; 4 channels(selective) in digital form.
Water Vapor Radiometer	ARC Experimental	032	-	-	Measures emissions in water vapor infrared spectral region. Data recorded on magnetic tape(digital).
Stratospheric Cryogenic Sampler	ARC Experimental	042	-	-	Measures quantities of chlorinated hydrocarbons in the stratosphere.
CO^2 Sampler	UCLA Experimental	043	-	-	Collects free air samples for laboratory research and analysis.
Heat Capacity Mapper	GSFC Satellite Prototype for Nimbus-G	044	21 swath (90° scan)	2.8 mrad IFOV	Thermal scanner senses the visible and thermal infrared portions of the spectrum. Data recorded on magnetic tape in analog form.
F-2 Foil Air Sampler	ARC Experimental	047	-	-	Sampler collects stratospheric aerosols and trace gas samples.
Stratospheric Air Sampler II	ARC Experimental	048	-	-	Measures nitric oxide and ozone concentrations. Data recorded on magnetic tape in digital form.
Aether Drift	Lawrence Berkeley Laboratory Experimental	049	-	-	Two upward looking radiometers measure the motion of the solar system with respect to distant matter in the universe.
Resonance Fluorescence Experiment	ARC Experimental	051	-	-	Measures chlorine molecule concentrations in the stratosphere.

Table 1-2. --Continued

System/Configuration	Sensor Type	Sensor ID	Crosstrack Coverage @ 65000' MSL (Nautical Miles)	Nominal Resolution (GRD-feet)	Remarks
Infrared Spectrometer	ARC Experimental	052	-	-	Measures minor atmospheric constituents and their concentrations.
Ocean Temperature Scanner	GSFC Experimental	053	12 swath (60° scan)	7.0 mrad IFOV	Five channel scanning radiometer recording four infrared and one visible channel.
Calibrated Airborne Measurements Program	Lockheed Palo Alto Laboratories	054	-	-	Fixed position downward looking six channel infrared radiometer.
Ultraviolet Spectrometer	GSFC Experimental	057	-	-	Upward looking scanning spectrometer. Data recorded on magnetic tape.
Multiple Filter Sampler	ARC Experimental	058	-	-	Determines mass mixing ratios and chemical composition of stratospheric aerosols.
Daedalus Multispectral Scanner	ARC Experimental	059	(8,18 swath) (42-85 scan)	1.25,2.5 mrad IFOV	Eleven channel multispectral scanner. 10 channels visible and one channel infrared recorded on digital tape.
Inertial Navigation System	ARC Experimental	060	-	-	Records inflight housekeeping data on cassette tape.
Quartz Crystal Microbalance Cascade Impactor	ARC Experimental	061	-	-	Senses mass of suspended particulates as a function of particle size.
Modified Airborne Particle Sampler	ARC Experimental	062	-	-	Coats collected aerosols with thin gold film for scanning electron microscopy.

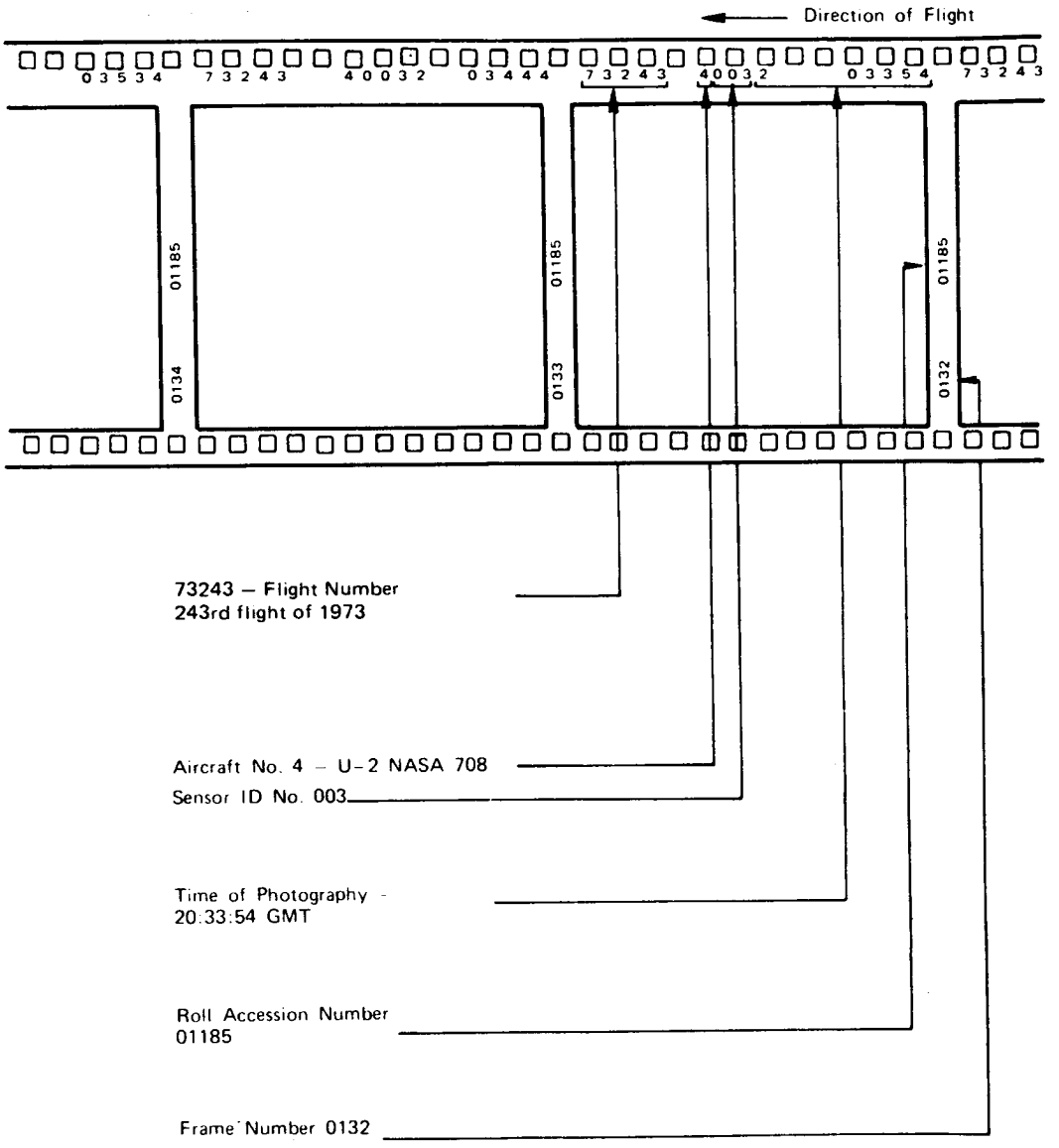


Figure 1-1. Vinten Camera System Data Annotation

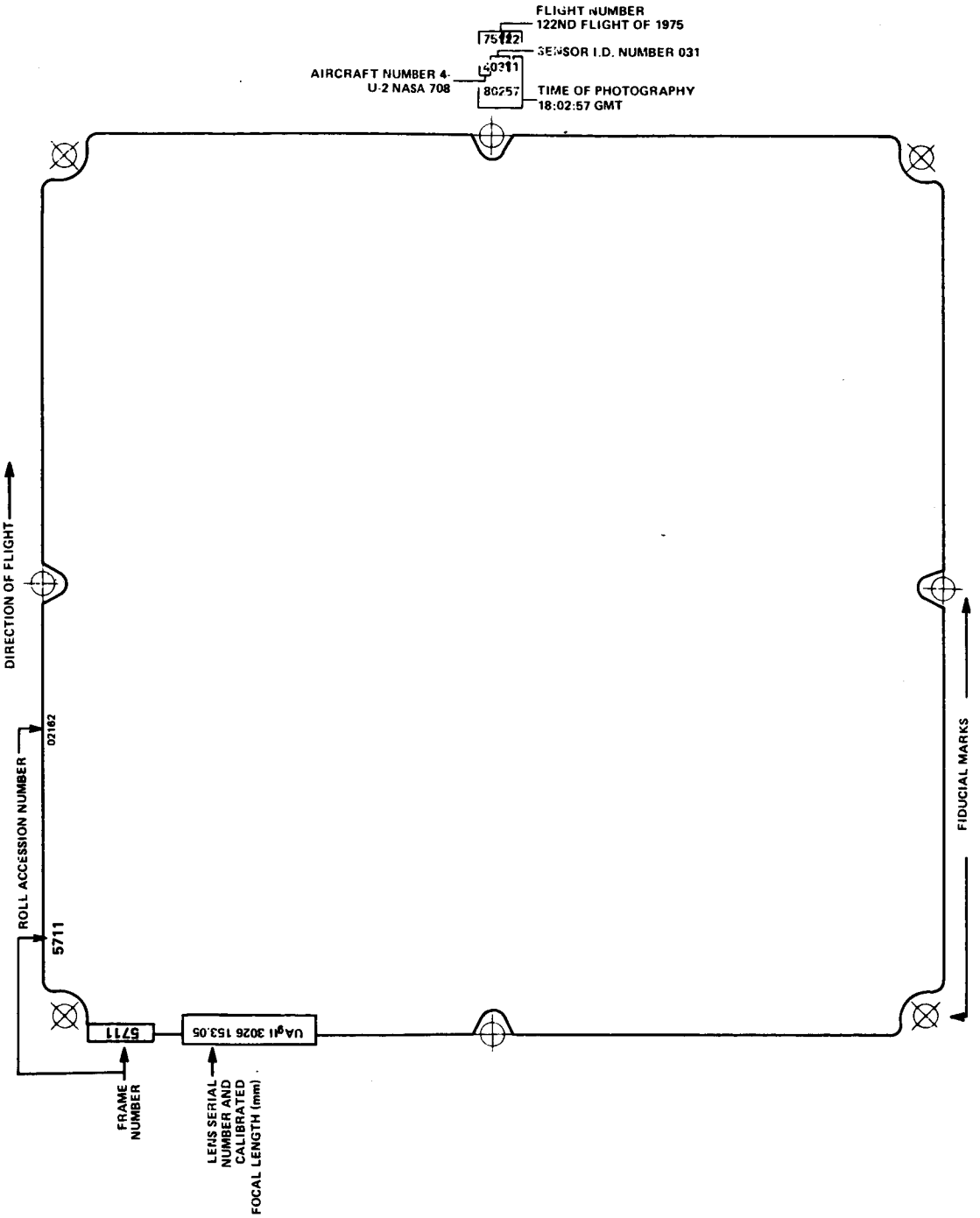


Figure 1-2. RC-10 Camera Data Annotation

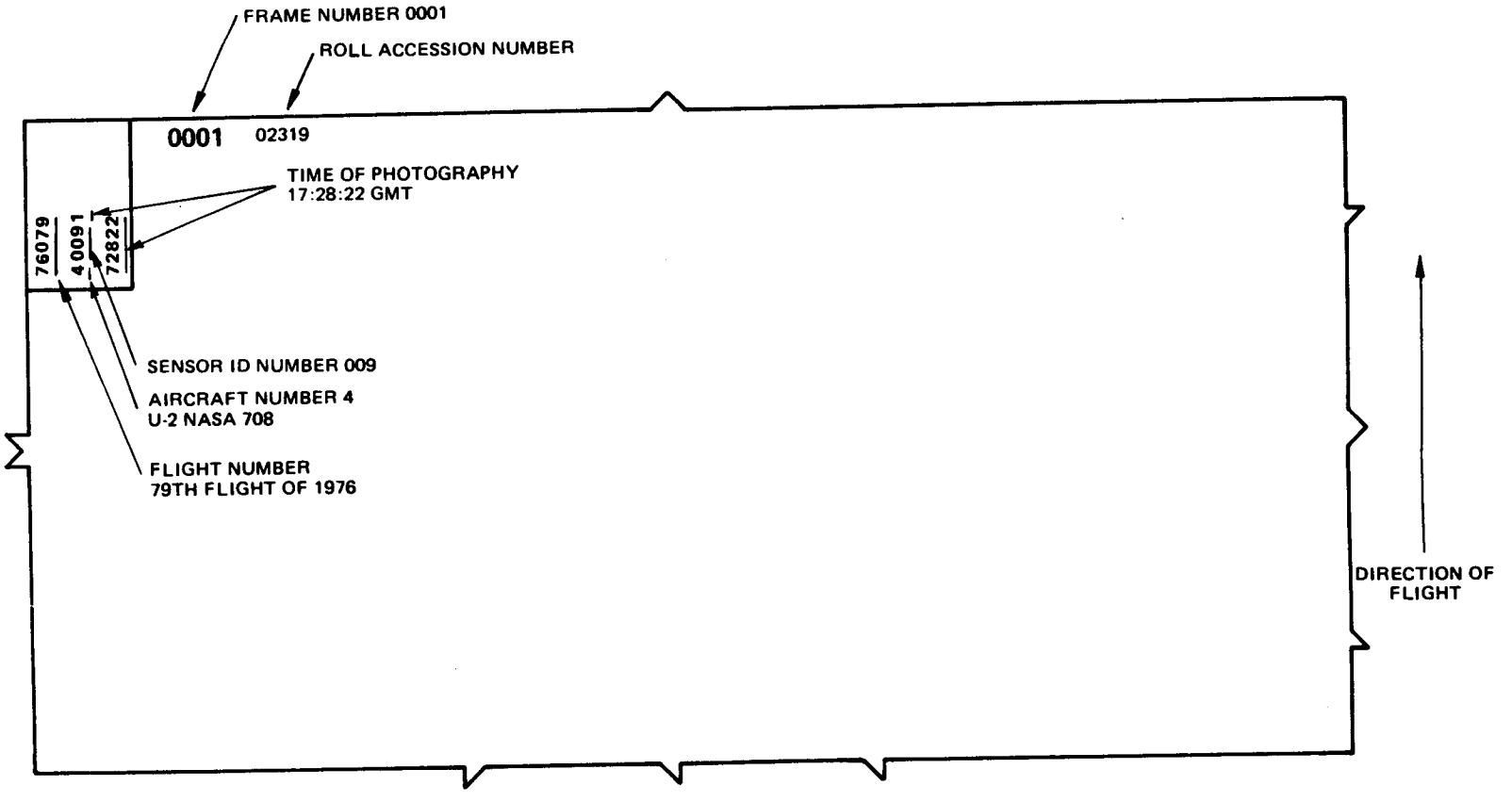


Figure 1-3. HR-732 Camera Data Annotation

2. AIRP FLIGHT COVERAGE.

This section contains information pertaining to the photographic data obtained by the Project during the catalog period only. It serves the user as a reference for determining the location and scale of the photographic data acquired during the period 1 October 1980 through 30 September 1981.

2.1 Data Coverage by State.

Table 2-1 is a cross-reference listing by state for photographic data flights accomplished during this catalog period. Non-photographic data flights are not listed.

Table 2-1. Flight Listing Cross Referenced by State

Alaska	Colorado	Michigan	Ohio
81-124	81-179	81-006	81-006
81-125		81-054	81-007
81-127	Florida		81-053
81-130	81-055	Missouri	
81-131		81-053	Oklahoma
81-132	Idaho		81-038
81-133	81-075	Montana	81-039
81-134	81-154	81-004	
81-135	81-170	81-116	Oregon
81-136			81-074
81-137	Illinois	Nevada	81-140
81-139	81-006	81-101	81-173
	81-007	81-105	
California		81-106	Pennsylvania
81-001	Indiana	81-107	81-008
81-051	81-006	81-108	
81-052	81-007	81-109	Utah
81-059	81-047	81-115	81-101
81-063	81-053	81-118	81-105
81-079	81-054	81-168	81-108
81-093			81-109
81-094	Iowa	North Dakota	81-115
81-096	81-045	81-046	81-118
81-117		81-048	81-119
81-153	Kentucky		81-168
	81-007		81-178

Table 2-1. --Continued

Washington

81-003

81-074

Wyoming

81-170

81-177

3. FLIGHT SUMMARIES

FLIGHT SUMMARY REPORT

Flight No: 81-001

Date: 1 October 1980

FSR No: 1467

Julian Date: 275

Sensor Package: Itek Optical Bar

Aircraft No: 4

Purpose of Flight: #0890 Support
Requestor: Weber

Area(s) Covered: S. Sierras, California

SENSOR DATA

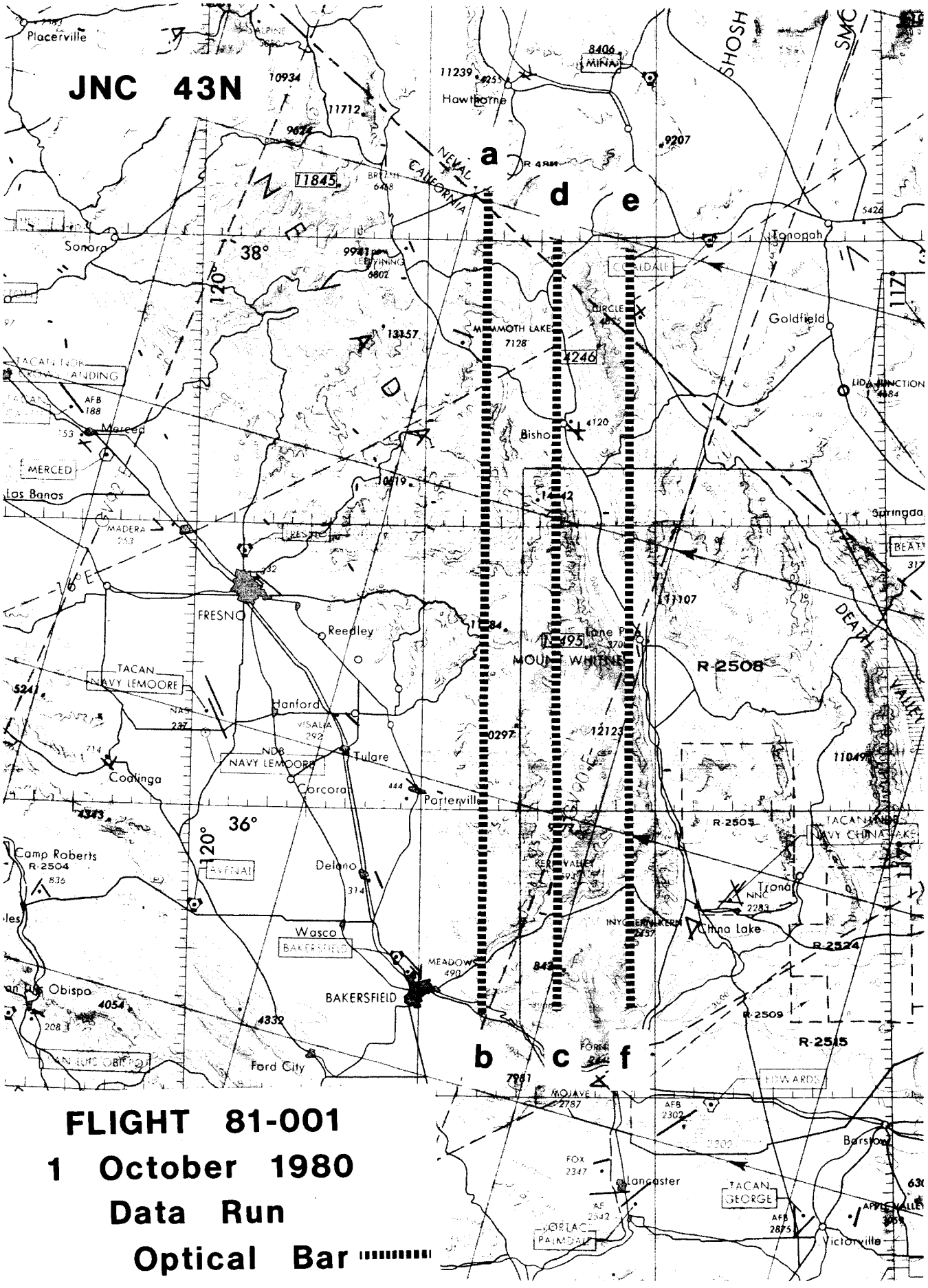
Accession No:	02954
Sensor ID No:	029
Sensor Type:	Optical Bar
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20B
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/200
No. of Frames:	534
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

80-001

This flight was flown in support of Flight Request #0890 (Weber, USFS) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. Panoramic photography was collected over a portion of the southern Sierras with the Optical Bar camera.

The entire area was cloud-free, however a portion of the area was obscured by smoke from a forest fire. No processing or camera malfunctions were noted and the quality of the data is rated excellent.


JNC 43N
a
b
c
d
e
f
FLIGHT 81-001
1 October 1980
Data Run
Optical Bar

FLIGHT SUMMARY REPORT

Flight No: 81-002 **Date:** 2 October 1980

FSR No: 1478 **Julian Date:** 276

Sensor Package: Daedalus Multispectral Scanner (DMS) **Aircraft No:** 4

Purpose of Flight: #0774 Support
Requestor: Shelton

Area(s) Covered: San Francisco/Monterey Bay Areas, CA

SENSOR DATA

Accession No:	---
Sensor ID No:	059
Sensor Type:	DMS (1.25 mrad)
Focal Length:	---
Film Type:	---
Filtration:	---
Spectral Band:	.38 - 1.10um 10.4 - 12.5um
f Stop:	---
Shutter Speed:	---
No. of Frames:	---
% Overlap:	---
Quality:	---
Remarks:	Tape data only

FLIGHT SUMMARY

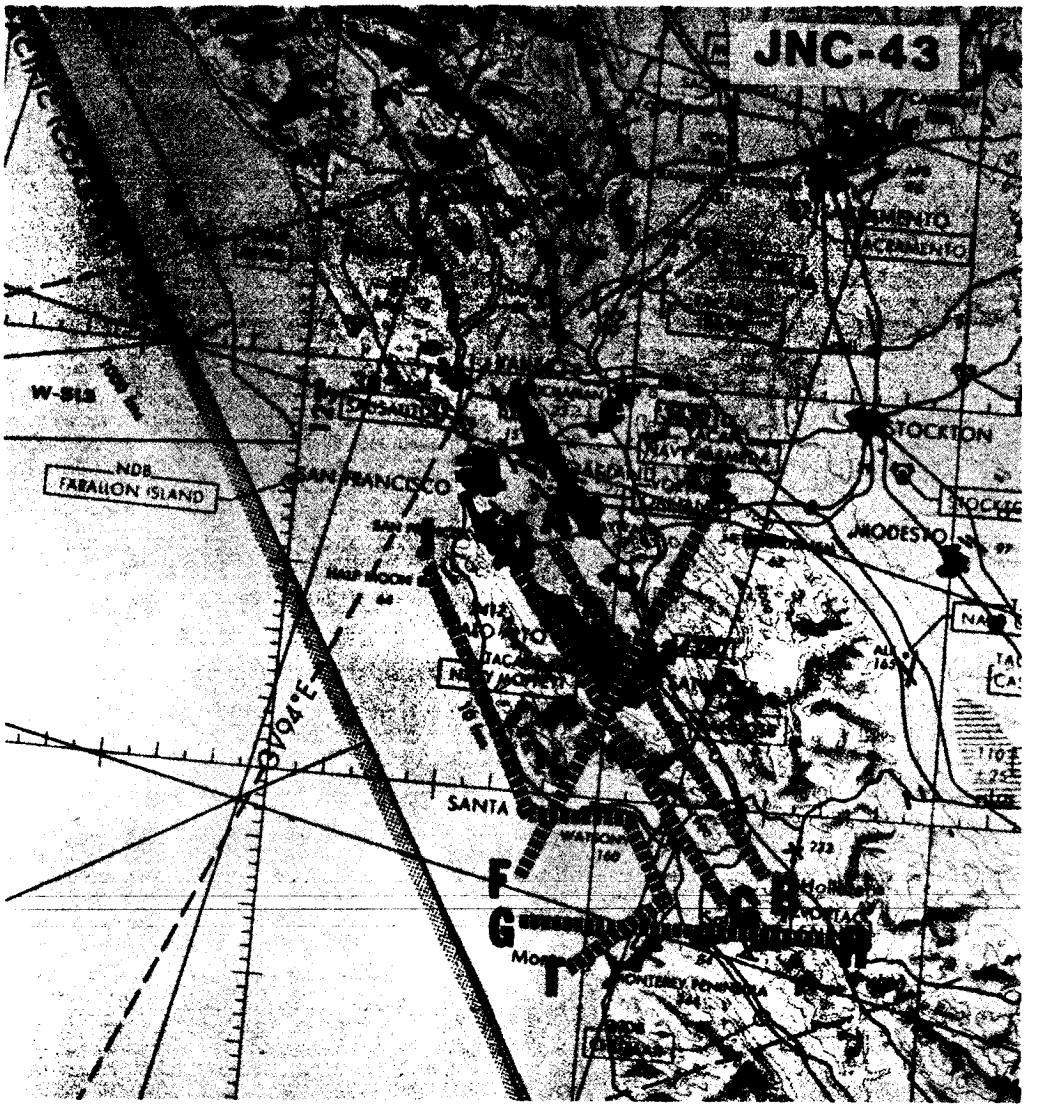
81-002

This flight was flown in support of Flight Request #0774 (Shelton, EPA) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner (DMS) data was acquired over the San Francisco and Monterey Bay Areas (see Track Map).

The Daedalus Multispectral Scanner is a modified Daedalus DEI-1260 eleven channel scanner. The system is entirely digital, with ten channels in the visible and near visible portions of the spectrum and one channel in the thermal infrared region. The scanner has an IFOV of either 1.25 or 2.5 milliradians depending on the scanhead utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

IFOV	1.25mrad	2.5mrad
Pixels/scan line	715	715
Scan angle	42°	85°
Swath width	8nm	18nm
Scan rate	10 lines/sec	10 lines/sec
Resolution (from 65,000 ft)	80 ft	160 ft

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	10.40 - 12.50um
Channel 6	.60 - .65um		



FLIGHT 81-002

2 October 1980

Data Run

DMS .....

FLIGHT SUMMARY REPORT

Flight No: 81-003

Date: 3 October 1980

FSR No: 1468

Julian Date: 277

Sensor Package: RC-10
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0666 Support
Requestor: Lumb
#0047 Support
Requestor: Ferry

Area(s) Covered: Puget Sound, WA

SENSOR DATA

Accession No:	02955	---
Sensor ID No:	035	024
Sensor Type:	RC-10	APS
Focal Length:	6" 153.46mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B + 2.2AV	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/75	---
No. of Frames:	149	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

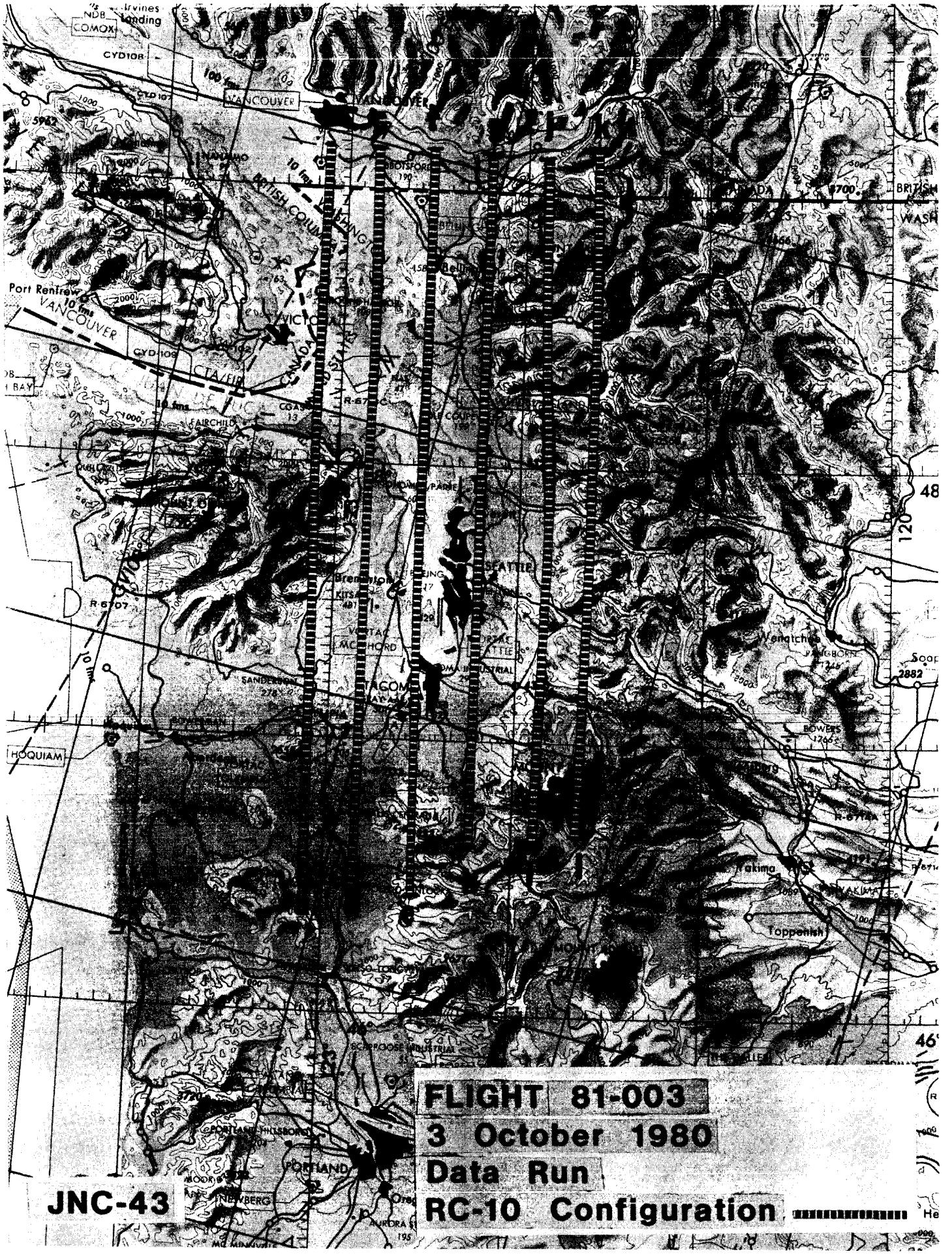
FLIGHT SUMMARY

81-003

This flight was flown in support of Flight Requests #0666 (Lumb, NASA/ARC) and #0047 (Ferry, NASA/ARC) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. The RC-10 camera was utilized to acquire photography over portions of Oregon and Washington (see Track Map). Additionally Aerosol Particulate Sampler (APS) data was collected but is not indicated on the track map.

The entire area was cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


Irvines Landing
COMOX
CYD10R
VANCOUVER
Port Renfrew
10 fms
VICTORIA
CTA/FIR
FAIRCHILD
R-6707
SEATTLE
Wenatchee
Yakima
Toppenish
HOQUIAM
PORTLAND
NEWBERG
FLIGHT 81-003
3 October 1980
Data Run
RC-10 Configuration
JNC-43

FLIGHT SUMMARY REPORT

Flight No: 81-004

Date: 6 October 1980

FSR No: 1469

Julian Date: 280

Sensor Package: A-4 Camera Configuration

Aircraft No: 5

Purpose of Flight: #0666 Support
Requestor: Lumb
#0047 Support
Requestor: Ferry

Area(s) Covered: Flathead Lake, Montana

SENSOR DATA

Accession No:	02956	02957	---
Sensor ID No:	035	039	024
Sensor Type:	RC-10	HR-732	APS
Focal Length:	6" 153.46mm	24" 609.6mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B + 2.2AV	CC .20B	---
Spectral Band:	510-900nm	510-900nm	---
f Stop:	4	8	---
Shutter Speed:	1/75	1/75	---
No. of Frames:	98	347	---
% Overlap:	60	60	---
Quality:	Excellent	Excellent	---
Remarks:	---	---	Non-imaging sensor

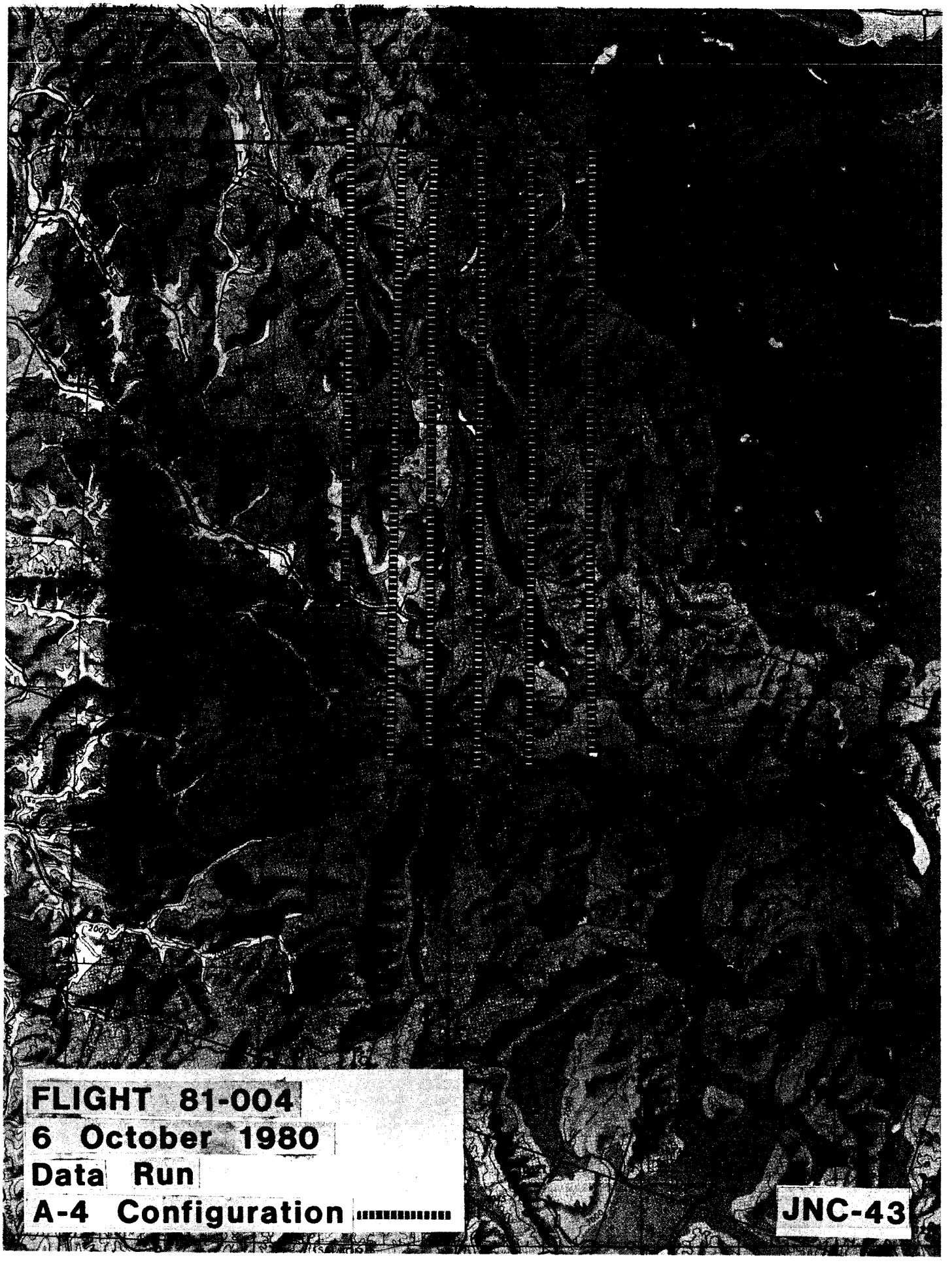
FLIGHT SUMMARY

81-004

This flight was flown in support of Flight Requests #0666 (Lumb, NASA/ARC) and #0047 (Ferry, NASA/ARC) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained over the Flathead River Valley, Montana. Additionally, Aerosol Particulate Sampler (APS) data was collected but is not depicted on the track map.

The entire area was cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


FLIGHT 81-004
6 October 1980
Data Run
A-4 Configuration
JNC-43

FLIGHT SUMMARY REPORT

Flight No: 81-006

Date: 18 October 1980

FSR No: 1470

Julian Date: 292

Sensor Package: RC-10

Aircraft No: 4

Purpose of Flight: #0740 Support
Requestor: Anderson

Area(s) Covered: Illinois, Indiana, Ohio and Michigan

SENSOR DATA

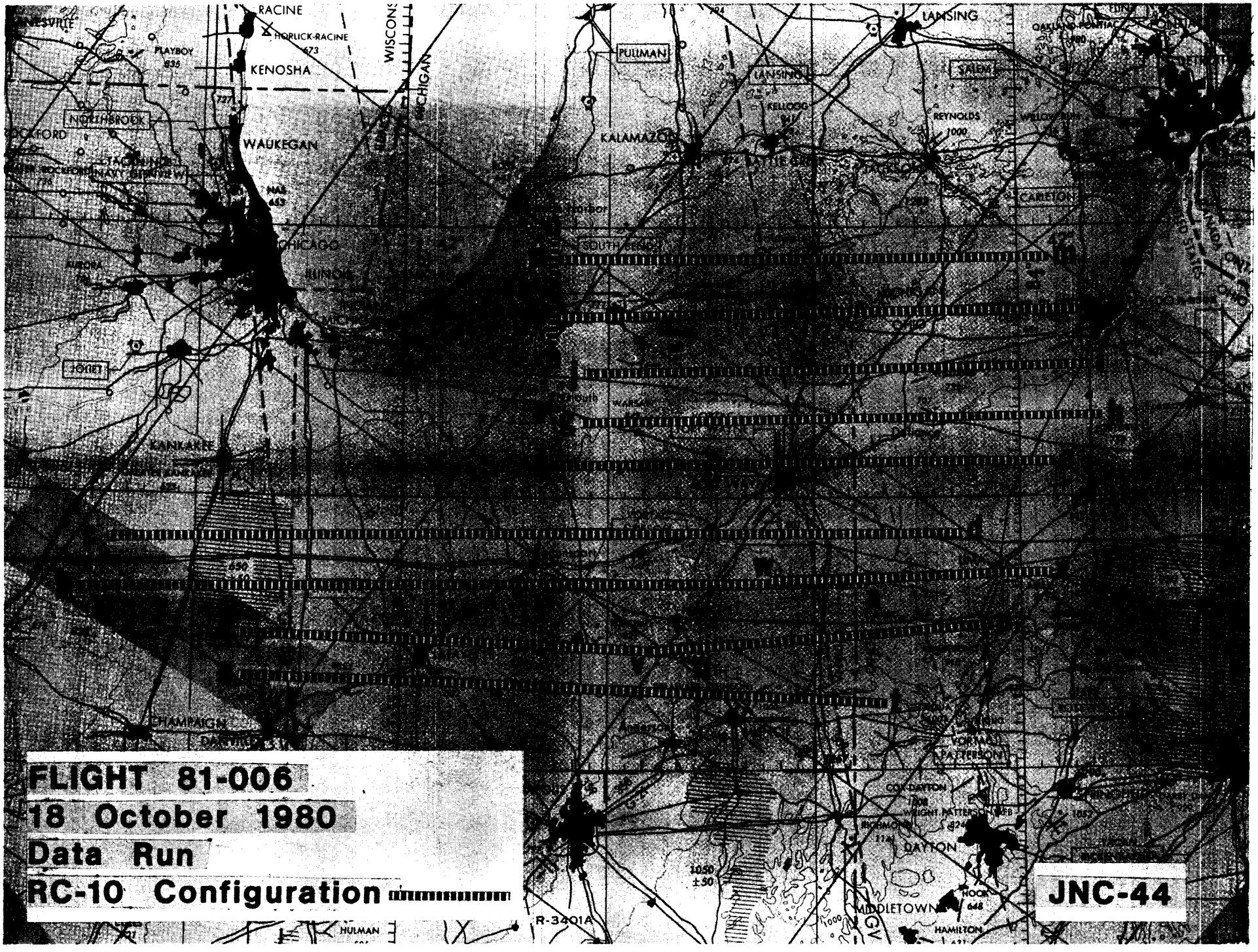
Accession No:	02958
Sensor ID No:	036
Sensor Type:	RC-10
Focal Length:	6" 153.19mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20B + 2.2AV
Spectral Band:	510-900nm
f Stop:	4
Shutter Speed:	1/75
No. of Frames:	212
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-006

This flight was flown in support of Flight Request #0740 (Anderson, USGS) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. The flight provides RC-10 photography over portions of Illinois, Indiana, Ohio and Michigan (see Track Map).

Minor cumulus and cirrus cloud-cover was encountered on some flight lines. No camera or processing malfunctions were noted and the quality of the data is rated excellent.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HORLICK-RACINE
KENOSHA
PLAYBOY
WISCONSIN
MICHIGAN
NORTHBROOK
WAUKEGAN
ROCKFORD
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ILLINOIS
JOLIET
KANKAKEE
CHAMPAIGN
DANVILLE
PULLMAN
LANSING
KALAMAZOO
SOUTH BEND
SALEM
REYNOLDS
CARLETON
DAYTON
MIDDLETOWN
HAMILTON
R-3401A
HULMAN
FLIGHT 81-006
18 October 1980
Data Run
RC-10 Configuration
JNC-44

FLIGHT SUMMARY REPORT

Flight No: 81-007

Date: 21 October 1980

FSR No: 1471

Julian Date: 295

Sensor Package: RC-10

Aircraft No: 4

Purpose of Flight: #0886 Support
Requestor: Anderson

Area(s) Covered: Illinois, Indiana, Ohio and Kentucky

SENSOR DATA

Accession No:	02960
Sensor ID No:	036
Sensor Type:	RC-10
Focal Length:	6" 153.19mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20B + 2.2AV
Spectral Band:	510-900nm
f Stop:	4
Shutter Speed:	1/75
No. of Frames:	186
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-007

This flight was flown in support of Flight Request #0886 (Anderson, USGS) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. The RC-10 camera was utilized to acquire photography over portions of Illinois, Indiana, Ohio, and Kentucky.

The area was generally cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

JNC-44

JNC-45

FLIGHT 81-007

21 OCTOBER 1980

DATA RUN

RC -10

FLIGHT SUMMARY REPORT

Flight No: 81-008

Date: 23 October 1980

FSR No: 1472

Julian Date: 297

Sensor Package: Itek Optical Bar Panoramic Camera

Aircraft No: 4

Purpose of Flight: #0863 Support
Requestor: Walle

Area(s) Covered: Western Pennsylvania

SENSOR DATA

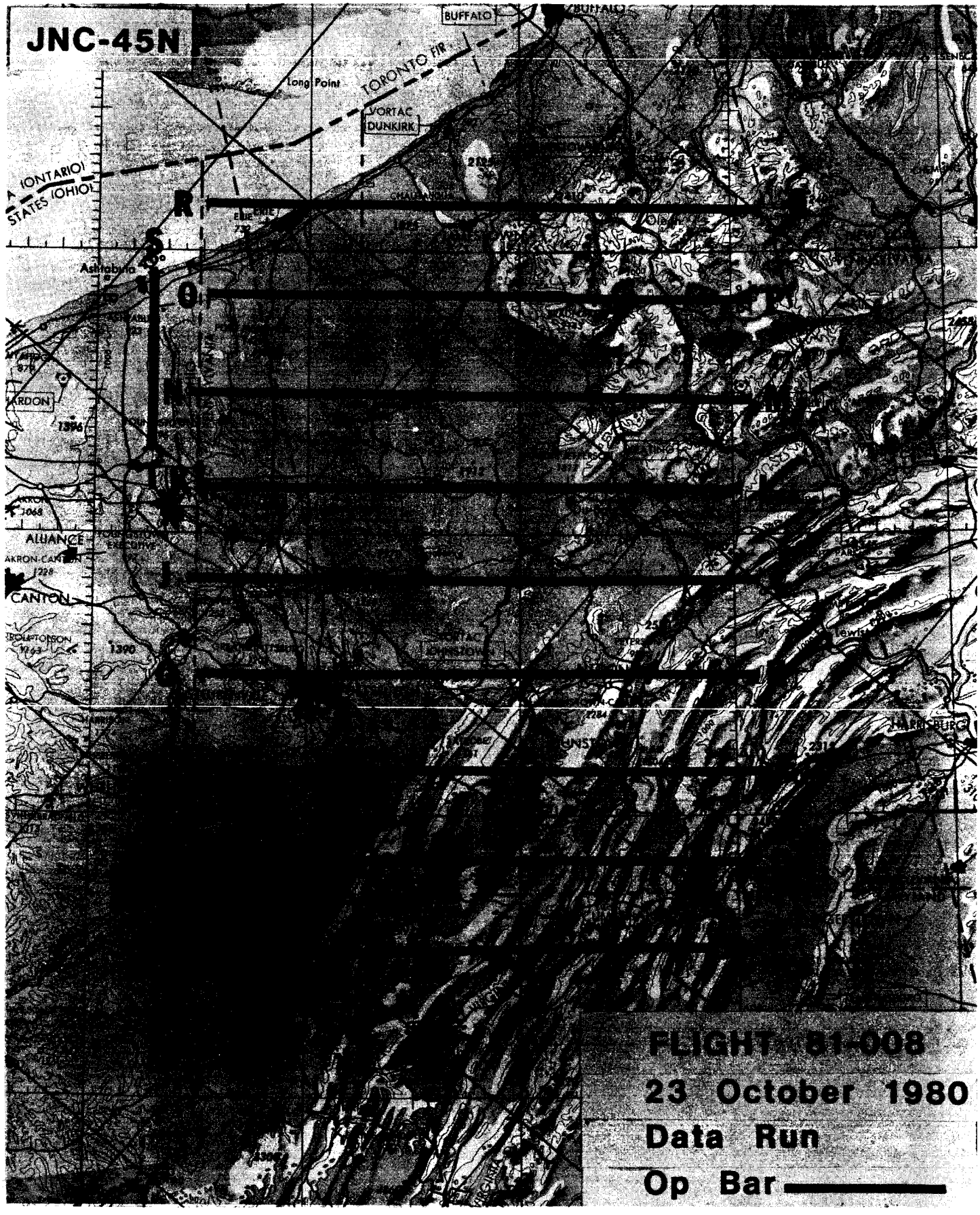
Accession No:	02961
Sensor ID No:	029
Sensor Type:	Optical Bar
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20C
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/350
No. of Frames:	1170
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-008

This flight was flown in support of Flight Request #0863 (Walle, EPA) under the FY 1980 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained over western Pennsylvania utilizing the Optical Bar panoramic camera. Because of a cirrus front moving rapidly northward, the pilot chose to fly east-west lines instead of the pre-planned north-south lines.

The entire area was clear. No processing or camera malfunctions were noted and the quality of the data is rated excellent.


JNC-45N
BUFFALO
Long Point
TORONTO FIR
VORTAC
DUNKIRK
A (ONTARIO)
STATES (OHIO)
Ashtabula
ALLIANCE
CANTON
FLIGHT 81-008
23 October 1980
Data Run
Op Bar

FLIGHT SUMMARY REPORT

Flight No: 81-028

Date: 15 January 1981

FSR No: 1483

Julian Date: 015

Sensor Package: Daedalus Multispectral Scanner (DMS)

Aircraft No: 5

Purpose of Flight: #0889 Support
Requestor: Winter

Area(s) Covered: Central Sierra Nevada, California

SENSOR DATA

Accession No:	---
Sensor ID No:	059
Sensor Type:	DMS
Focal Length:	---
Film Type:	---
Filtration:	---
Spectral Band:	.38 - 1.10um 10.4 - 12.5um
f Stop:	---
Shutter Speed:	---
No. of Frames:	---
% Overlap:	---
Quality:	---
Remarks:	2.5mrad configuration Tape data only

FLIGHT SUMMARY

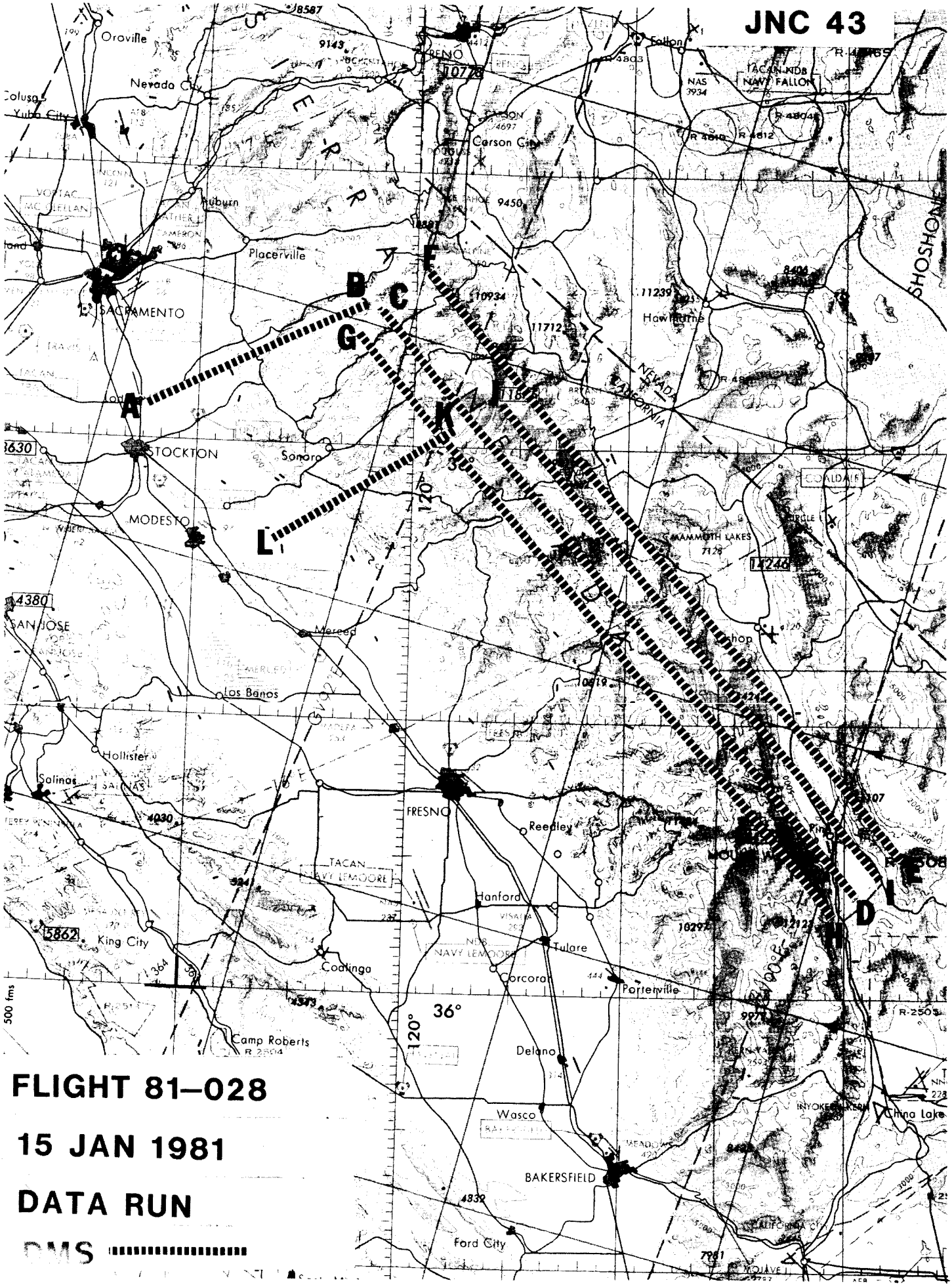
81-028

This flight was flown in support of Flight Request #0889 (Winter, IBM) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner data was acquired over the central crest and foothills of the Sierra Nevada, California.

The Daedalus Multispectral Scanner is a modified Daedalus DEI-1260 eleven channel scanner. The system is entirely digital, with ten channels in the visible and near visible portions of the spectrum and one channel in the thermal infrared region. The scanner has an IFOV of either 1.25 or 2.5 milliradians depending on the scanhead utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

IFOV	1.25mrad	2.5mrad
Pixels/scan line	715	715
Scan angle	42°	85°
Swath width	8nm	18nm
Scan rate	10 lines/sec	10 lines/sec
Resolution (from 65,000 ft)	80 ft	160 ft

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	10.40 - 12.50um
Channel 6	.60 - .65um		



FLIGHT 81–028

15 JAN 1981

DATA RUN

DMS

FLIGHT SUMMARY REPORT

Flight No: 81-038 **Date:** 11 March 1981

FSR No: 1484 **Julian Date:** 070

Sensor Package: Optical Bar Panoramic Camera **Aircraft No:** 5

Purpose of Flight: # 0896 Support
Requestor: Weber

Area(s) Covered: Oklahoma

SENSOR DATA

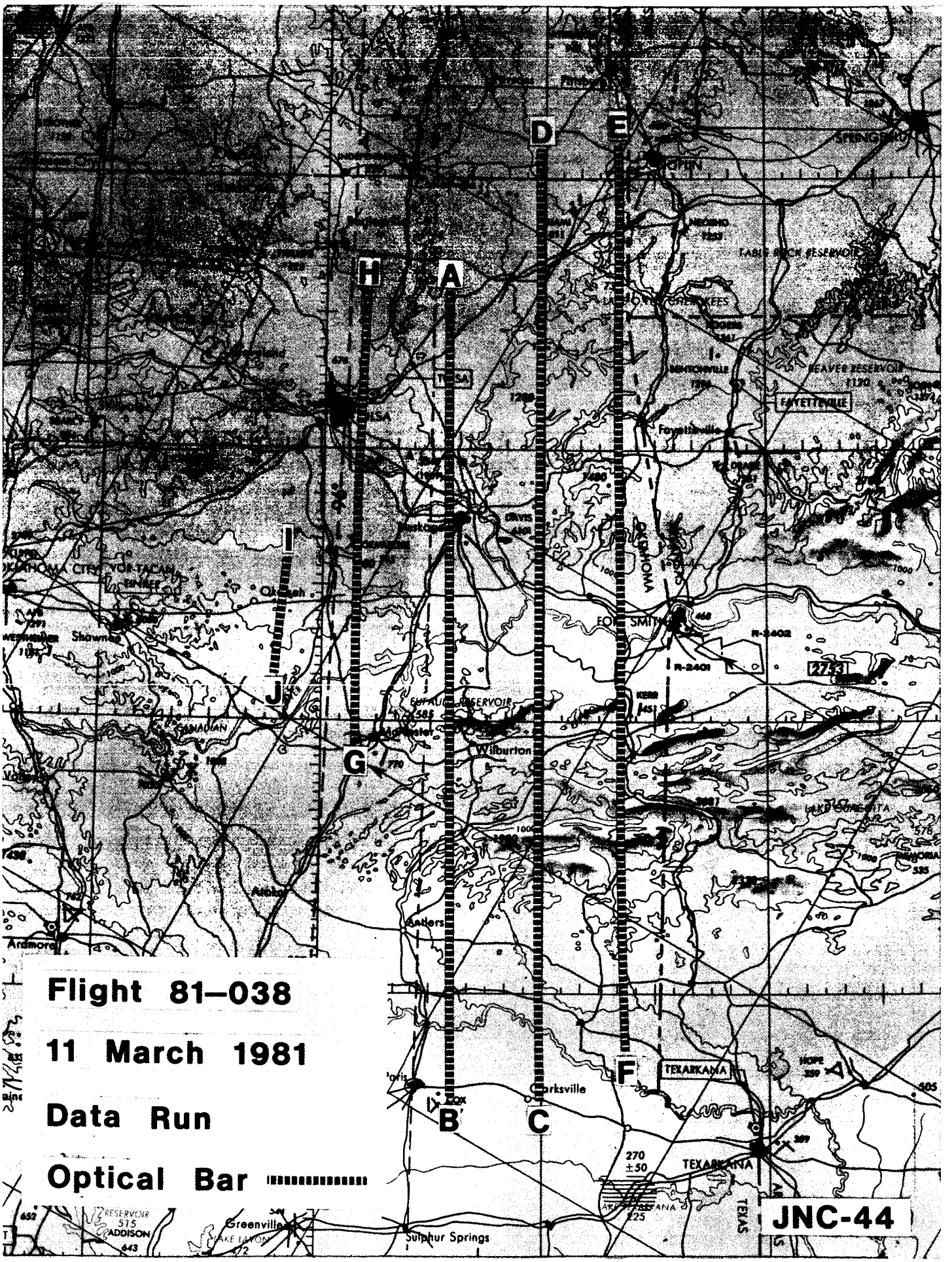
Accession No:	02962
Sensor ID No:	029
Sensor Type:	Optical Bar
Focal Length:	24" 609.6 mm
Film Type:	High Definition Aerochrome Infrared So-131
Filtration:	CC .10C
Spectral Band:	510-900 nm
f Stop:	3.5
Shutter Speed:	1/300
No. of Frames:	714
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-038

This flight was flown in support of Flight Request #0896 (Weber, USFS) under the FY 1981 Airborne Instrumentation Research Program. The Itek Optical Bar Panoramic Camera was utilized to acquire photography over eastern Oklahoma.

Minor to heavy cirro-cumulus clouds were encountered on portions of the flight lines (see Flight line data). The data annotation block was incorrect; it read 81-037 but should read 81-038. No processing malfunctions were noted and the quality of the data is rated excellent.


D
E
H
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B
C
F
Flight 81–038
11 March 1981
Data Run
Optical Bar
JNC-44

FLIGHT SUMMARY REPORT

Flight No: 81-039

Date: 12 March 1981

FSR No: 1485

Julian Date: 071

Sensor Package: Optical Bar Panoramic Camera

Aircraft No: 5

Purpose of Flight: # 0896 Support
Requestor: Weber

Area(s) Covered: Oklahoma

SENSOR DATA

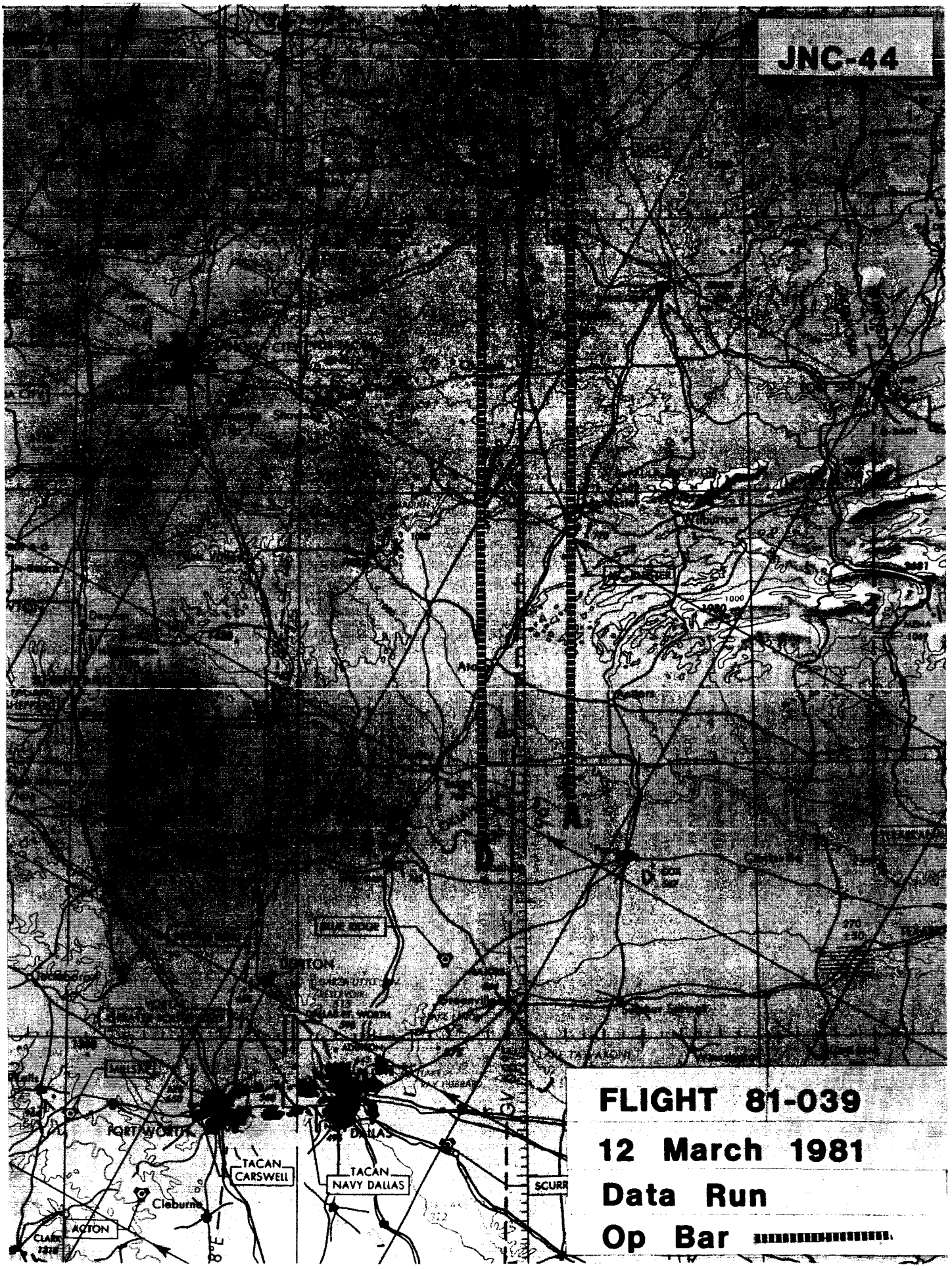
Accession No:	02963
Sensor ID No:	029
Sensor Type:	Optical Bar
Focal Length:	24" 609.6 mm
Film Type:	High Definition Aerochrome Infrared So-131
Filtration:	CC .10C
Spectral Band:	510-900 nm
f Stop:	3.5
Shutter Speed:	1/300
No. of Frames:	298
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-039

This flight was flown in support of Flight Request #0896 (Weber, USFS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. The Itek Optical Bar Panoramic camera was utilized to acquire photography over eastern Oklahoma.

Minor to heavy cirro-cumulus clouds were encountered on portions of the flight lines (see Flight Line Data). The data annotation block was incorrect; it read 81-037 but should have read 81-039. No processing malfunctions were noted and the quality of the data is rated excellent.


JNC-44
FLIGHT 81-039
12 March 1981
Data Run
Op Bar
FORT WORTH
DALLAS
TACAN
CARSWELL
TACAN
NAVY DALLAS
Cleburne
ACTON
LAKE RAY HUBBARD
LAKE TAWAKONI

FLIGHT SUMMARY REPORT

Flight No: 81-045

Date: 2 April 1981

FSR No: 1487

Julian Date: 092

Sensor Package: RC-10

Aircraft No: 5

Purpose of Flight: # 779 Support
Requestor: Anderson
892 Support
Requestor: Witmer

Area(s) Covered: Iowa

SENSOR DATA

Accession No: 02964

Sensor ID No: 036

Sensor Type: RC-10

Focal Length: 6"
153.19 mm

Film Type: High Definition
Aerochrome Infrared,
SO-131

Filtration: CC .10B + 2.2 AV

Spectral Band: 510-900 nm

f Stop: 4

Shutter Speed: 1/75

No. of Frames: 120

% Overlap: 60

Quality: Excellent

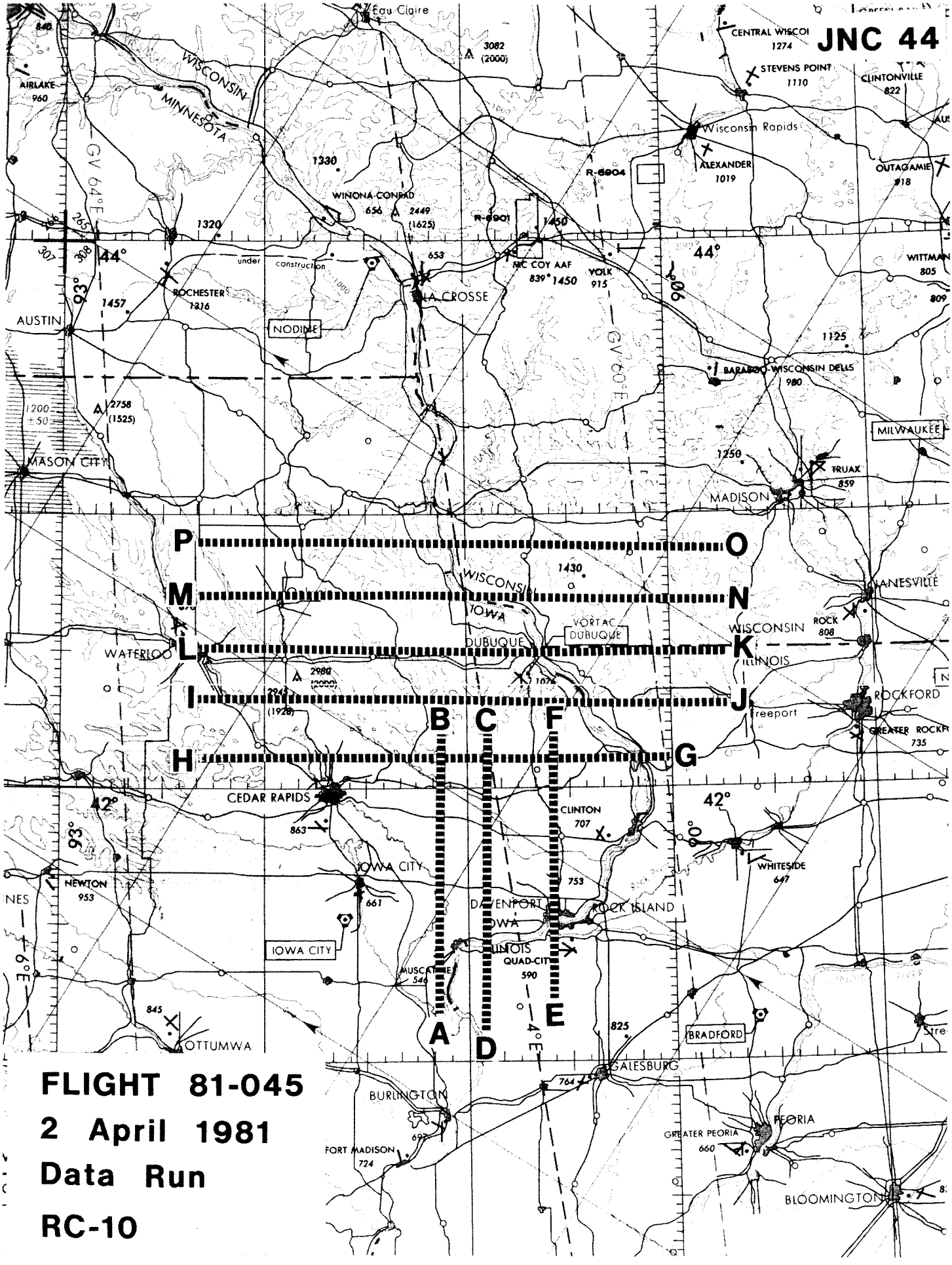
Remarks: ---

FLIGHT SUMMARY

81-045

This flight was flown in support of Flight Requests #0779 (Anderson, USGS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. The RC-10 camera configuration was utilized to acquire photography over a portion of Iowa.

Very minor cloud cover was encountered on two flight lines. Time segment of the LED annotation was obscured and is unreadable. Times were taken from the pilots log. No processing malfunctions were noted and the quality of the data is rated excellent.



FLIGHT 81-045

2 April 1981

Data Run

RC-10

FLIGHT SUMMARY REPORT

Flight No: 81-046 **Date:** 5 April 1981

FSR No: 1488 **Julian Date:** 95

Sensor Package: Dual RC-10 **Aircraft No:** 5

Purpose of Flight: #0751 Support
Requestor: Montanari

Area(s) Covered: North Dakota

SENSOR DATA

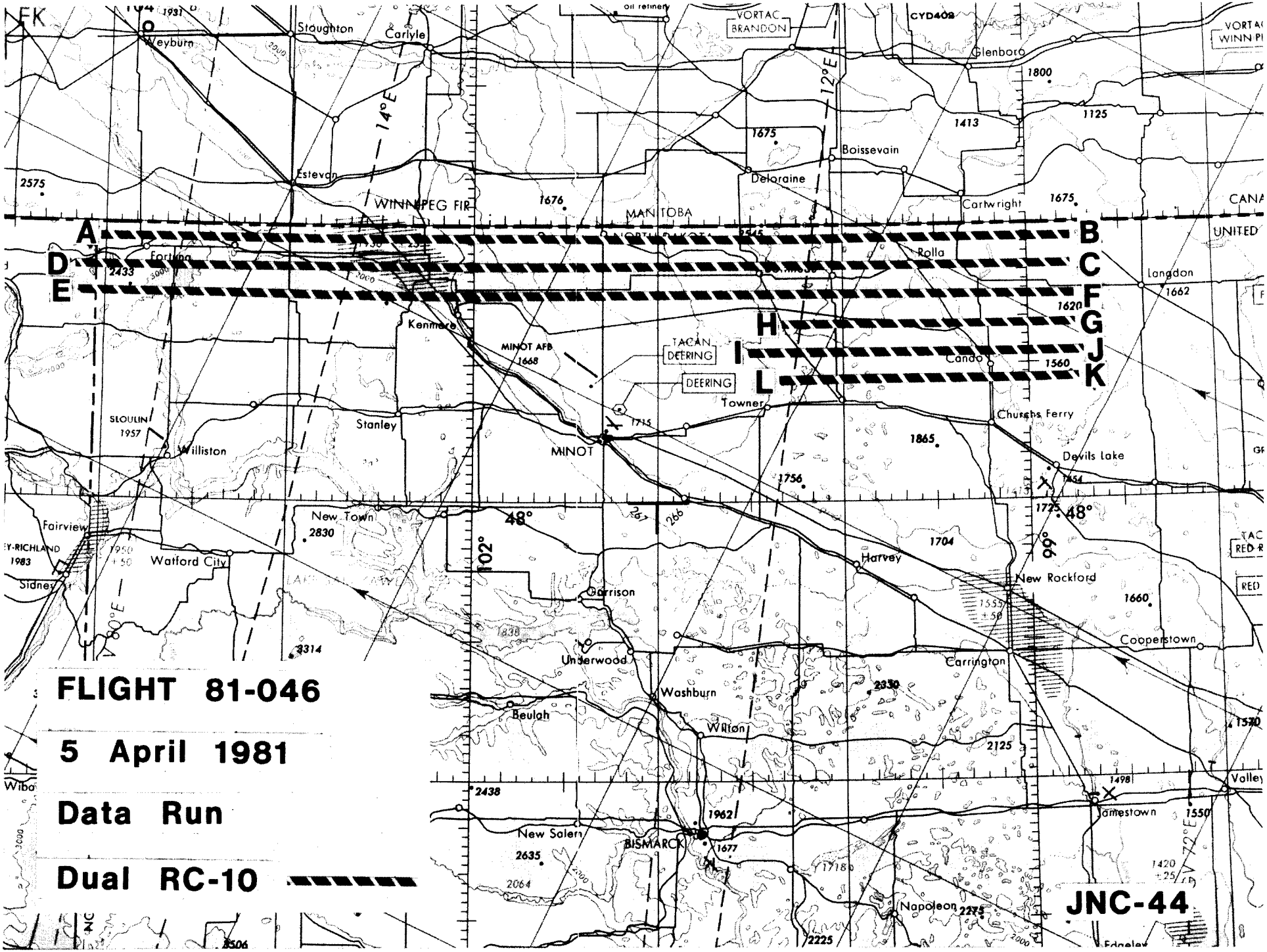
Accession No:	02965	02966
Sensor ID No:	026	034
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	12" 304.66mm
Film Type:	High Definition Aerochrome Infrared SO-131	Aerographic Infrared 2424
Filtration:	CC.10B + 2.2	Wratten 88A + 1.4AV
Spectral Band:	510-900nm	725-900nm
f Stop:	4	8
Shutter Speed:	1/125	1/200
No. of Frames:	257	255
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-046

This flight was flown in support of Flight Request #0751 (Montanari, Fish and Wildlife) under the FY 1981 Airborne Instrumentation Research Program (AIRP). Photographic coverage was obtained over North Dakota (see track map).

Thin cirrus was encountered over portions of the flight. Light to moderate cumulus was encountered also over portions of the flight (see Flight Line Data). Times were approximated from the pilot's flight log as the clock was not functioning properly.


FLIGHT 81-046
5 April 1981
Data Run
Dual RC-10
JNC-44
A
B
C
D
E
F
G
H
I
J
K
L
WINNIPEG FIR
MANITOBA
VORTAC BRANDON
TACAN DEERING
DEERING
MINOT AFB
MINOT
Williston
Stanley
Kenmare
Fortuna
Estevan
Carlyle
Weyburn
Staughton
Deloraine
Boissevain
Glenboro
Cartwright
Rolla
Langdon
Cando
Towner
Churchs Ferry
Devils Lake
New Town
Watford City
Fairview
Sidney
Harvey
New Rockford
Garrison
Underwood
Washburn
Beulah
Wilton
Carrington
Cooperstown
Jamestown
Valley
New Salem
BISMARCK
Napoleon
102°
48°
99°
14°E
12°E

FLIGHT SUMMARY REPORT

Flight No: 81-047 **Date:** 6 April 1981

FSR No: 1489 **Julian Date:** 096

Sensor Package: RC-10 **Aircraft No:** 5

Purpose of Flight: #0780 Support
Requestor: Anderson

Area(s) Covered: Indiana

SENSOR DATA

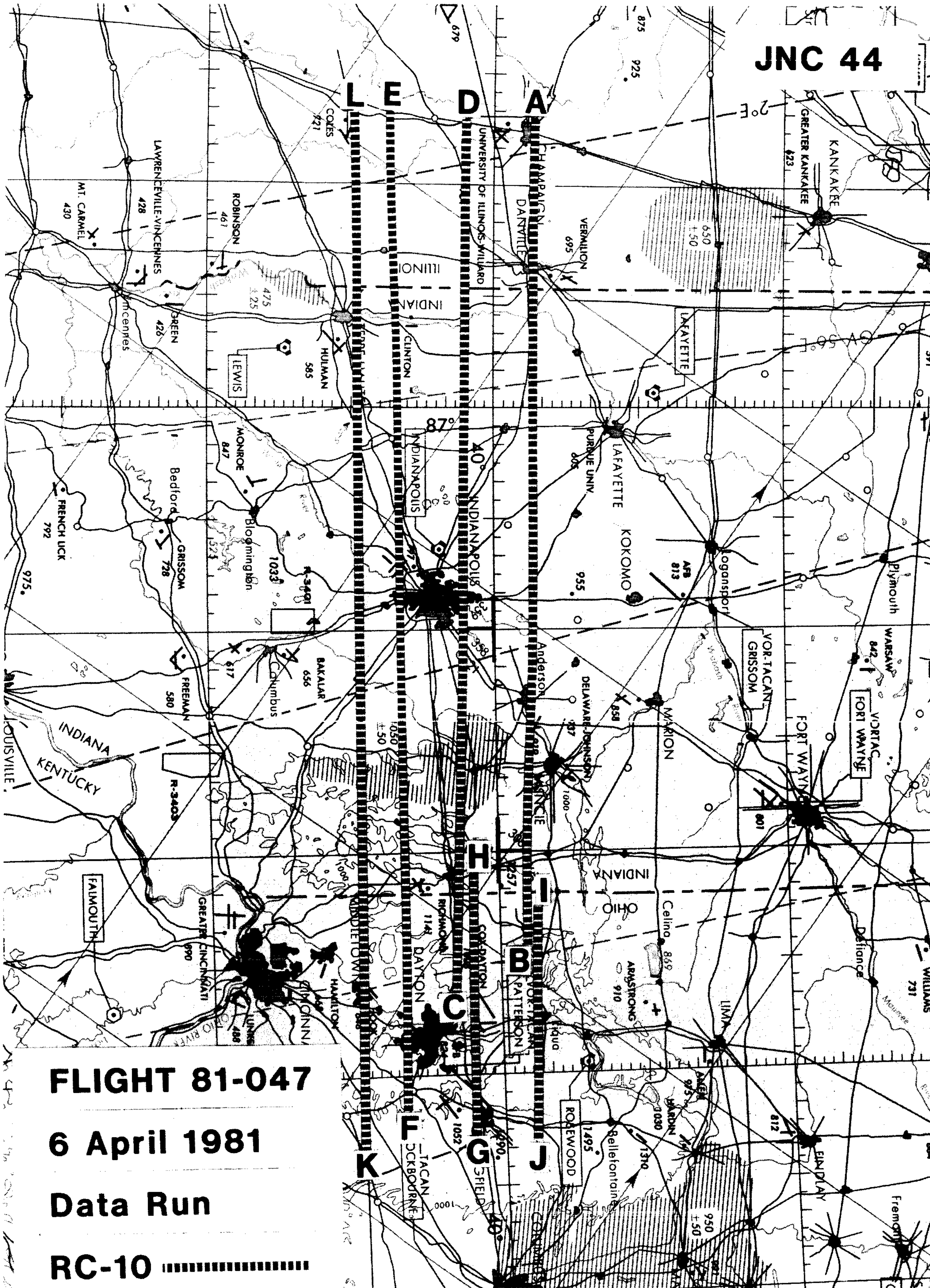
Accession No:	02967
Sensor ID No:	036
Sensor Type:	RC-10
Focal Length:	6" 153.19mm
Film Type:	High Definition Aerochrome Infrared SO-131
Filtration:	2.2AV + CC.10B
Spectral Band:	510-900nm
f Stop:	4
Shutter Speed:	1/75
No. of Frames:	140
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-047

This flight was flown in support of Flight Request #0780 (Anderson, USGS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained over Indiana (see Track Map).

The weather was clear except for some minor cumulus clouds east of Indianapolis. There is some defocusing in corners due to color compensating filters. There were no other camera or processing malfunctions noted, and the quality of the imagery is rated as excellent.



FLIGHT 81-047

6 April 1981

Data Run

RC-10

FLIGHT SUMMARY REPORT

Flight No: 81-048 **Date:** 7 April 1981

FSR No: 1490 **Julian Date:** 097

Sensor Package: Dual RC-10 **Aircraft No:** 5

Purpose of Flight: #0751 Support
Requestor: Montanari

Area(s) Covered: North Dakota

SENSOR DATA

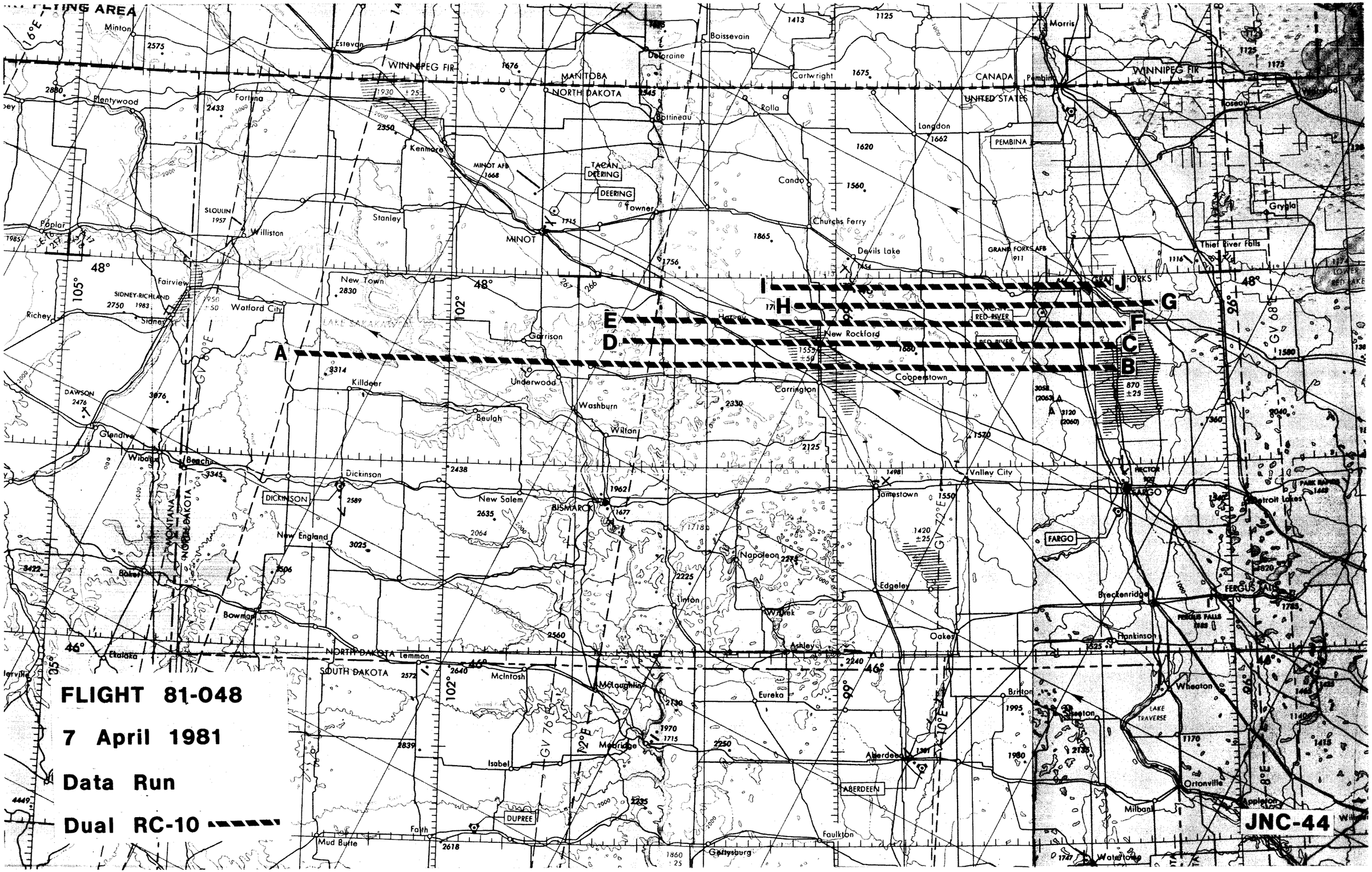
Accession No:	02968	02969
Sensor ID No:	026	034
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	12" 304.97mm
Film Type:	High Definition Aerochrome Infrared SO-131	Aerographic Infrared 2424
Filtration:	CC.10B	Wratten 88A + 1.4AV
Spectral Band:	510-900nm	725-900nm
f Stop:	4	8
Shutter Speed:	1/125	1/200
No. of Frames:	234	226
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-048

This flight was flown in support of Flight Request #0751 (Montanari, Fish and Wildlife) under the FY 1981 Airborne Instrumentation Research Program (AIRP). Photographic coverage was obtained over North Dakota (see track map).

The flight was clear except for minor cumulus over portions of the data lines. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


FLIGHT 81-048
7 April 1981
Data Run
Dual RC-10
JNC-44
A
B
C
D
E
F
G
H
I
J
WINNIPEG FIR
MANITOBA
NORTH DAKOTA
CANADA
UNITED STATES
MINOT
MINOT AFB
DEERING
TACAN
PEMBINA
GRAND FORKS AFB
FARGO
DICKINSON
BISMARCK
DUPREE
ABERDEEN
RED RIVER
LAKE TRAVERSE
Minton
Estevan
Boissevain
Morris
Plentywood
Fortuna
Doloraine
Cartwright
Pembina
Rolla
Kenmare
Bottineau
Langdon
Cando
Towner
Churchs Ferry
Devils Lake
Grygla
Thief River Falls
Stanley
Williston
Poplar
SLOULIN
Fairview
New Town
SIDNEY-RICHLAND
Richey
Sidney
Watford City
Garrison
New Rockford
Harvey
Carrington
Coopestown
Valley City
Jamestown
Underwood
Killdeer
Washburn
Beulah
Wilton
Glendive
Wibaux
Beach
DAWSON
Dickinson
New Salem
New England
Napoleon
Linton
Edgeley
Oakes
Hankinson
Breckenridge
FERGUS FALLS
Bowman
Baker
Ekalaka
Lemmon
McIntosh
McLaughlin
Eureka
Britton
Wheaton
Milbank
Ortonville
Isabel
Mobridge
Aberdeen
Mud Butte
Faith
Gettysburg
Faulkton
Watertown
Detroit Lakes
Wadena
Roseau
Hector
Park Rapids
Wahpeton
Appleton
105°
102°
99°
96°
48°
46°
GV 68°E
GV 70°E
GV 72°E
GV 76°E
GV 82°E
GV 90°E
GV 102°E
16°E

FLIGHT SUMMARY REPORT

Flight No: 81-051 **Date:** 7 April 1981

FSR No: 1491 **Julian Date:** 097

Sensor Package: RC-10
Aerosol Particulate Sampler (APS) **Aircraft No:** 4

Purpose of Flight: #0666 Support
Requestor: Lumb
#0047 Support
Requestor: Ferry

Area(s) Covered: Central California

SENSOR DATA

Accession No:	02970	---
Sensor ID No:	033	024
Sensor Type:	RC-10	APS
Focal Length:	6" 153.17mm	---
Film Type:	Aerochrome Infrared, SO 193	---
Filtration:	Wratten 12 + 2.2AV	---
Spectral Band:	510-900nm	---
f Stop:	5.6	---
Shutter Speed:	1/250	---
No. of Frames:	107	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	non-imaging sensor

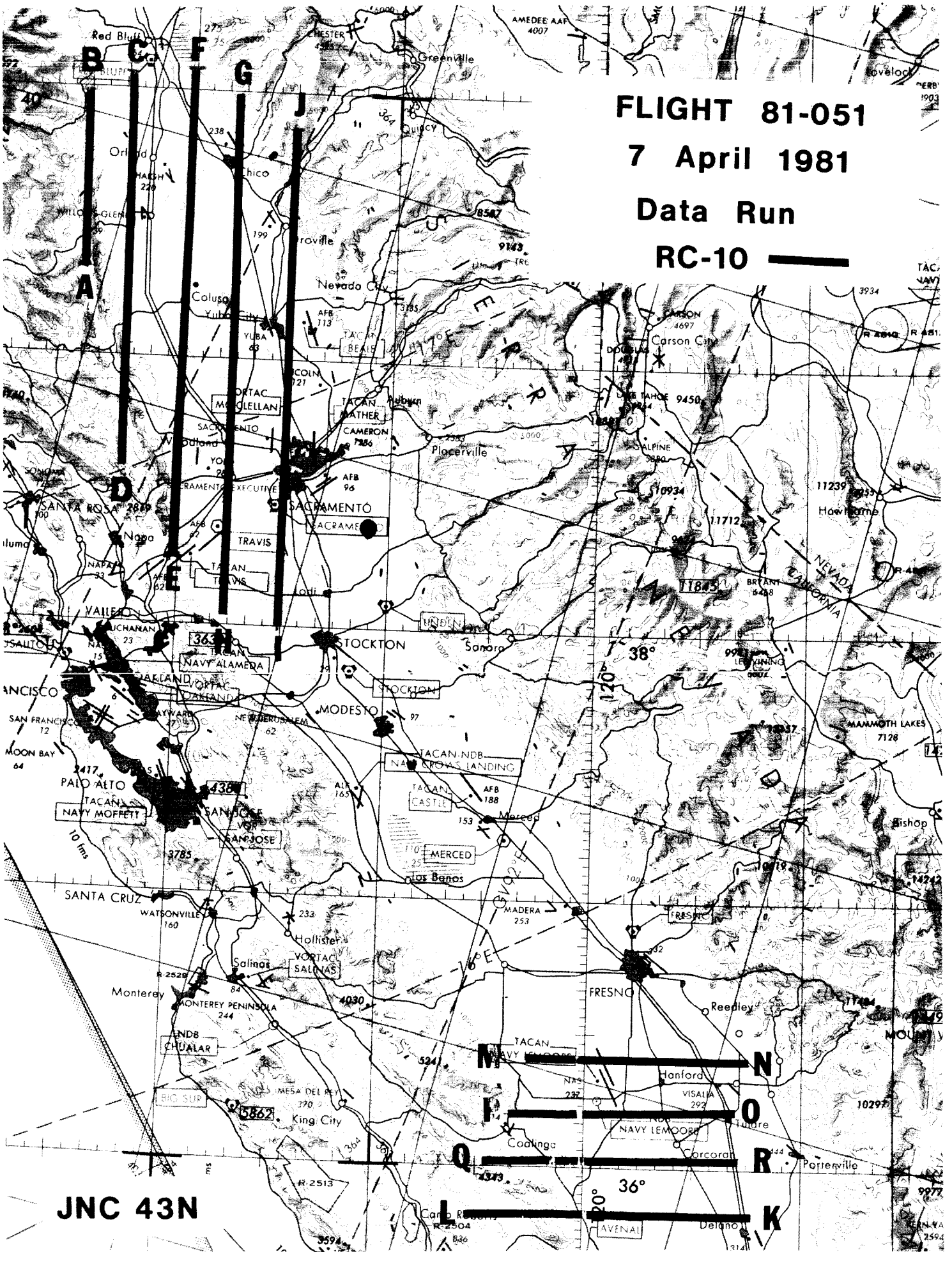
FLIGHT SUMMARY

81-051

This flight was flown in support of Flight Requests #0666 (Lumb, NASA/ARC) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. RC-10 photographic coverage was obtained over the Sacramento Valley and central San Joaquin valley in California (see Track Map). Aerosol Particulate Sampler (APS) data was acquired, but is not shown on the track map due to the limited data collection.

Thin cirrus was encountered over the Sacramento Valley and moderate cirrus and cumulus over portions of the San Joaquin. The pilot flew the San Joaquin area in a disjointed manner in order to avoid the majority of cloud cover moving through the area. The times annotated on the film are 10 hours late due to mis-set clock. Correct times are listed in the flight line data. No camera or processing problems were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


FLIGHT 81-051
7 April 1981
Data Run
RC-10
JNC 43N
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
40°
38°
36°
120°
Red Bluff
Orland
Chico
Oroville
Greenville
Quincy
Colusa
Yuba City
Nevada City
Placerville
Carson City
Lake Tahoe
Woodland
Sacramento
Santa Rosa
Napa
Travis
Vallejo
Stockton
Sonora
Oakland
San Francisco
Modesto
Moon Bay
Palo Alto
San Jose
Merced
Los Banos
Santa Cruz
Watsonville
Hollister
Salinas
Monterey
Monterey Peninsula
Fresno
Madera
Reedley
Hanford
Visalia
Tulare
Coalinga
Corcoran
Porterville
King City
Delano
Mammoth Lakes
Bishop
Hawthorne
Lemoore
Mesa Del Rey
Chualar
Nevada
California
10 fms

FLIGHT SUMMARY REPORT

Flight No: 81-052

Date: 14 April 1981

FSR No: 1492

Julian Date: 104

Sensor Package: RC-10

Aircraft No: 4

Purpose of Flight: #0698 Support
Requestor: Erb

Area(s) Covered: California

SENSOR DATA

Accession No: 02971

Sensor ID No: 033

Sensor Type: RC-10

Focal Length: 6"
153.17mm

Film Type: Aerochrome Infrared,
SO 193

Filtration: Wratten 12 + 2.2AV

Spectral Band: 510-900nm

f Stop: 5.6

Shutter Speed: 1/250

No. of Frames: 43

% Overlap: Variable

Quality: Excellent

Remarks: ---

FLIGHT SUMMARY

81-052

This flight was flown in support of Flight Request #0698 (Erb, NASA/JSC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained over selected sites in California to support the Agristars program. Because of the selective nature of the coverage, no track map is provided.

All sites were cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

FLIGHT SUMMARY REPORT

Flight No: 81-053 **Date:** 15 April 1981

FSR No: 1493 **Julian Date:** 105

Sensor Package: RC-10 **Aircraft No:** 5

Purpose of Flight: #0780 Support
Requestor: Anderson
#0886 Support
Requestor: Witmer

Area(s) Covered: Missouri, Indiana, Ohio

SENSOR DATA

Accession No: 02972

Sensor ID No: 031

Sensor Type: RC-10

Focal Length: 6"
153.05mm

Film Type: High Definition
Aerochrome Infrared,
SO-131

Filtration: CC.10B + 2.2AV

Spectral Band: 510-900nm

f Stop: 4

Shutter Speed: 1/75

No. of Frames: 52

% Overlap: 60

Quality: Excellent

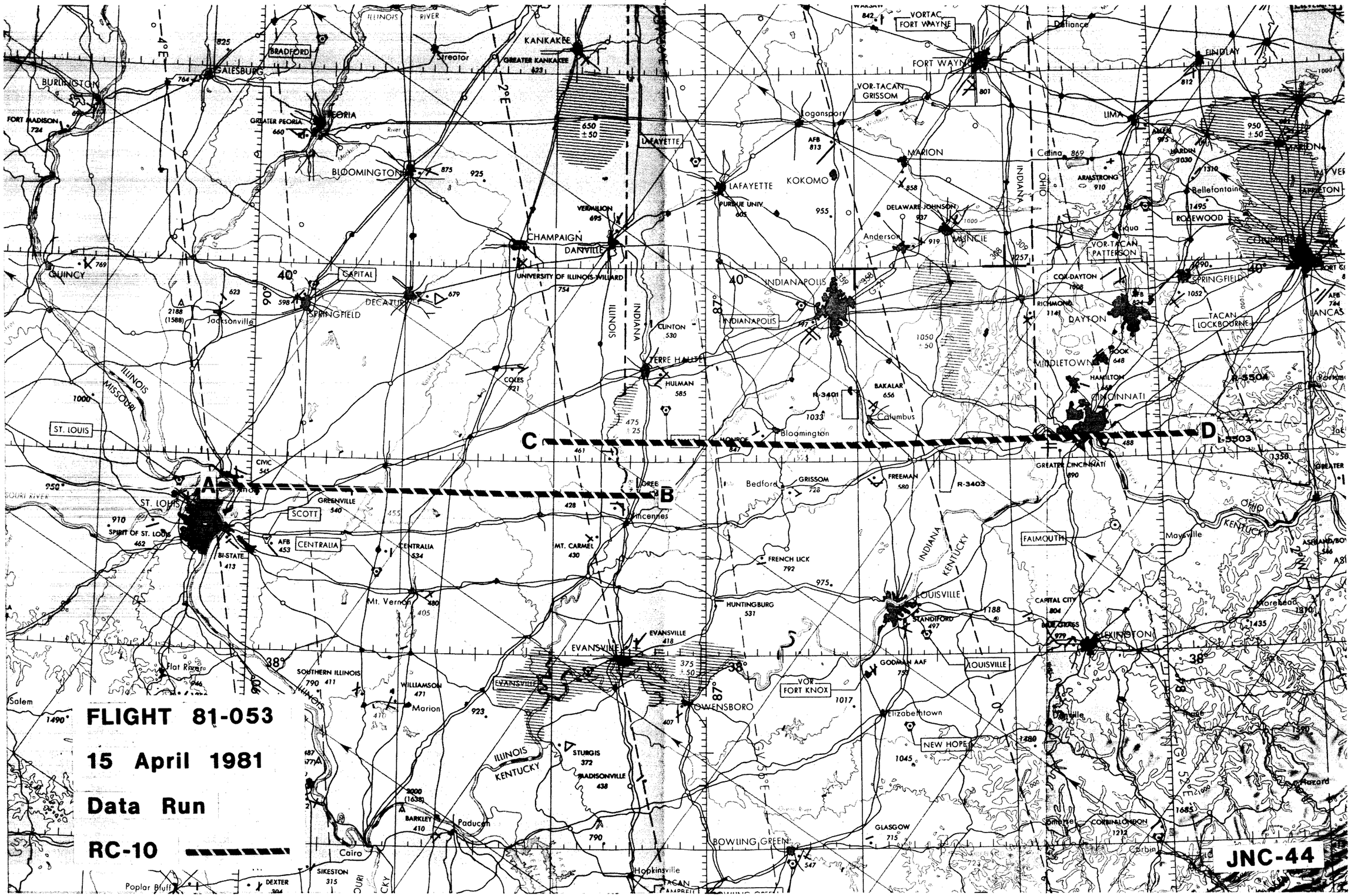
Remarks: ---

FLIGHT SUMMARY

81-053

This flight was flown in support of Flight Requests #0780 and #0886 (Witmer, USGS) under the FY 1981 Airborne Instrumentation Research Program (AIRP). RC-10 coverage was obtained over portions of Missouri, Indiana and Ohio.

The area of coverage was free of cloud cover. No camera or processing malfunctions were noted and the quality of the data is rated as excellent.


FLIGHT 81-053
15 April 1981
Data Run
RC-10
JNC-44
A
B
C
D
KANKAKEE
GREATER KANKAKEE
BRADFORD
Streator
GALESBURG
BURLINGTON
FORT MADISON
GREATER PEORIA
PEORIA
BLOOMINGTON
LAFAYETTE
VERMILION
CHAMPAIGN
DANVILLE
UNIVERSITY OF ILLINOIS-WILLARD
QUINCY
CAPITAL
SPRINGFIELD
DECATUR
Jacksonville
CLINTON
TERRE HAUTE
HULMAN
COLES
ILLINOIS
MISSOURI
ST. LOUIS
CIVIC
SCOTT
GREENVILLE
SPIRIT OF ST. LOUIS
BI-STATE
AFB
CENTRALIA
Mt. Vernon
SOUTHERN ILLINOIS
WILLIAMSON
Marion
Flat Rock
Salem
EVANSVILLE
STURGIS
MADISONVILLE
BARKLEY
Paducan
Cairo
SIKESTON
Poplar Bluff
DEXTER
Hopkinsville
TACAN
Bedford
GRISSOM
Vincennes
MT. CARMEL
VORTAC
FORT WAYNE
Defiance
FINDLAY
Logansport
VOR-TACAN
GRISSOM
LIMA
MARION
Celina
ARMSTRONG
Bellefontaine
ROOKWOOD
Piqua
VOR-TACAN
PATTERSON
SPRINGFIELD
COL-DAYTON
RICHMOND
DAYTON
TACAN
LOCKBOURNE
LANCAS
LAFAYETTE
PURDUE UNIV
KOKOMO
DELAWARE-JOHNSON
Anderson
MUNCIE
INDIANAPOLIS
INDIANAPOLIS
BAKALAR
Columbus
Bloomington
MIDDLETOWN
HAMILTON
CINCINNATI
GREATER CINCINNATI
FREEMAN
R-3403
FRENCH LICK
HUNTINGBURG
LOUISVILLE
STANDIFORD
FALMOUTH
Maysville
CAPITAL CITY
BLUE GRASS
LEXINGTON
Moorehead
GODMAN AAF
VOR
FORT KNOX
OWENSBORO
Elizabethtown
NEW HOPE
Danville
Hazard
GLASGOW
BOWLING GREEN
Somerset
CORBIN-LONDON
Corbin
INDIANA
OHIO
KENTUCKY
ILLINOIS
R-3501
R-3503
R-3504
87°
88°
40°
38°
2°E
1°E

FLIGHT SUMMARY REPORT

Flight No: 81-054

Date: 18 April 1981

FSR No: 1494

Julian Date: 108

Sensor Package: RC-10

Aircraft No: 5

Purpose of Flight: #0779 Support
Requestor: Anderson
#0780 Support
Requestor: Anderson

Area(s) Covered: Indiana and Michigan

SENSOR DATA

Accession No: 02973

Sensor ID No: 031

Sensor Type: RC-10

Focal Length: 6"
153.05mm

Film Type: High Definition
Aerochrome Infrared,
SO-131

Filtration: CC.10B + 2.2AV

Spectral Band: 510-900nm

f Stop: 4

Shutter Speed: 1/75

No. of Frames: 79

% Overlap: 60

Quality: Excellent

Remarks: ---

FLIGHT SUMMARY

81-054

This flight was flown in support of Flight Requests #0779 and #0780 (Anderson, USGS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. RC-10 photographic data was acquired over Indiana and Michigan (see Track Map).

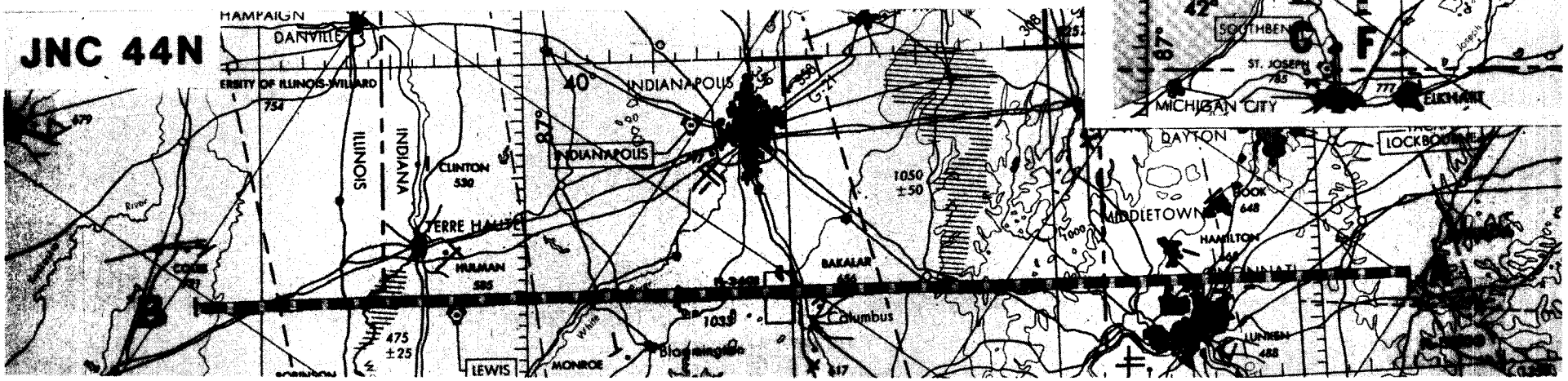
Both areas were cloud-free. No processing or camera malfunctions were noted and the quality of the data is rated excellent.

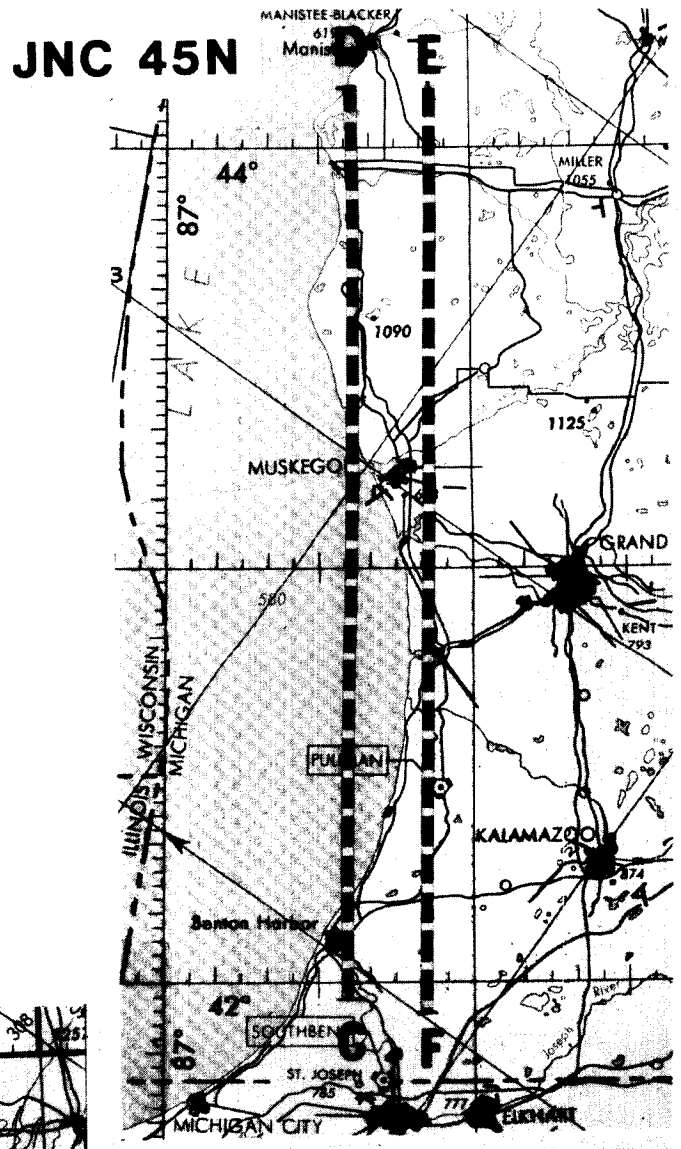
FLIGHT 81-054

18 April 1981

Data Run

RC-10 ------





FLIGHT SUMMARY REPORT

Flight No: 81-055 **Date:** 23 April 1981

FSR No: 1495 **Julian Date:** 113

Sensor Package: Vinten/Ocean Color Scanner (OCS) **Aircraft No:** 5

Purpose of Flight: #0874A Support
Requestor: Kim

Area(s) Covered: Offshore, Florida

SENSOR DATA

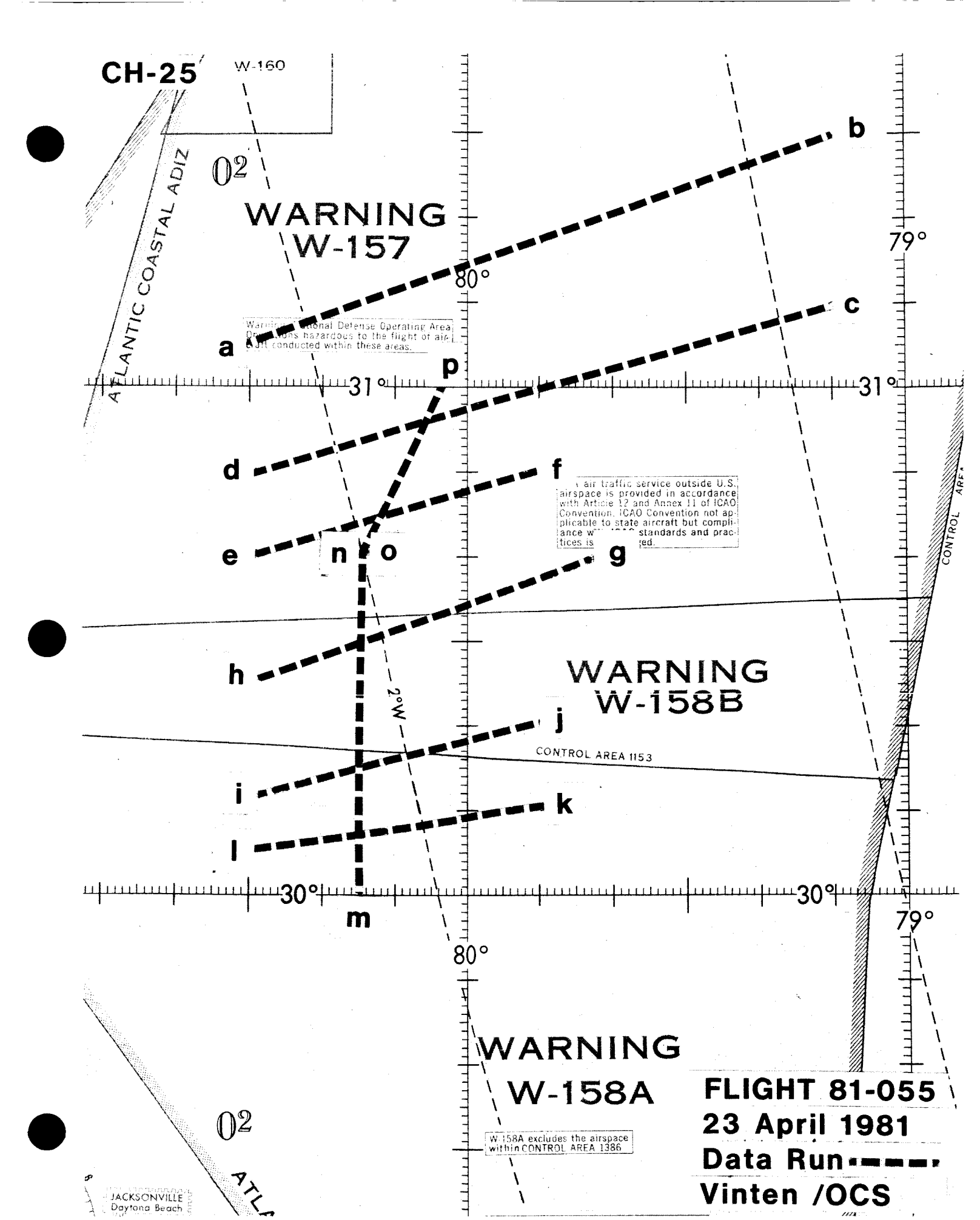
Accession No:	02974	---
Sensor ID No:	003	027
Sensor Type:	Vinten	OCS
Focal Length:	1-3/4" 44.5mm	---
Film Type:	Aerial Color, SO-242	---
Filtration:	None	---
Spectral Band:	400-700nm	427-774nm
f Stop:	3.5	---
Shutter Speed:	1/250	---
No. of Frames:	62	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Tape data only

FLIGHT SUMMARY

81-055

This flight was flown in support of Flight Request #0874 (Kim, NASA/GSFC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. The Vinten camera system and the Ocean Color Scanner (OCS) were utilized to acquire data off the Florida coast.

Minor cirrus were encountered on all flight lines. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


CH-25
W-160
ATLANTIC COASTAL ADIZ
WARNING
W-157
a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
p
31°
30°
80°
79°
2°W
CONTROL AREA 1153
WARNING
W-158B
WARNING
W-158A
W-158A excludes the airspace within CONTROL AREA 1386
JACKSONVILLE
Daytona Beach
FLIGHT 81-055
23 April 1981
Data Run
Vinten /OCS

FLIGHT SUMMARY REPORT

Flight No: 81-059 **Date:** 4 May 1981

FSR No: 1498 **Julian Date:** 124

Sensor Package: Itek Iris II Panoramic Camera **Aircraft No:** 5

Purpose of Flight: Camera Functional Test Flight

Area(s) Covered: San Francisco Bay Area

SENSOR DATA

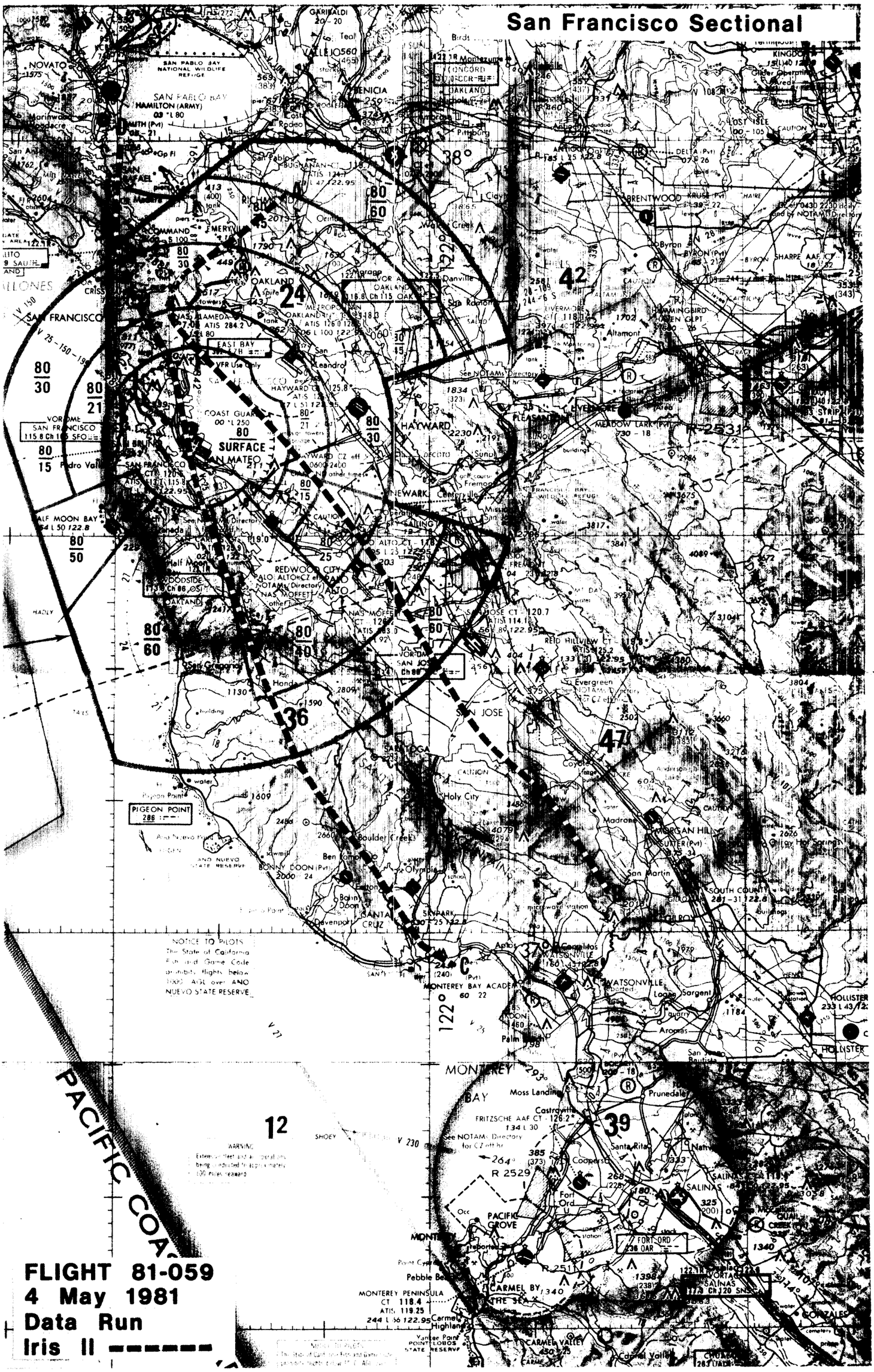
Accession No:	02976
Sensor ID No:	070
Sensor Type:	Itek Iris II
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared SO-131
Filtration:	CC .20C
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/300
No. of Frames:	131
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-059

This flight was a functional check flight of the Itek Iris II Panoramic Camera (modified 90° scan) which was flown over the San Francisco Bay Area (see Track Map).

The area was virtually cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


San Francisco Sectional
FLIGHT 81-059
4 May 1981
Data Run
Iris II

FLIGHT SUMMARY REPORT

Flight No: 81-063 **Date:** 23 April 1981

FSR No: 1497 **Julian Date:** 113

Sensor Package: IRIS II Panoramic Camera **Aircraft No:** 4

Purpose of Flight: Camera Functional Test Flight

Area(s) Covered: San Joaquin Valley, CA

SENSOR DATA

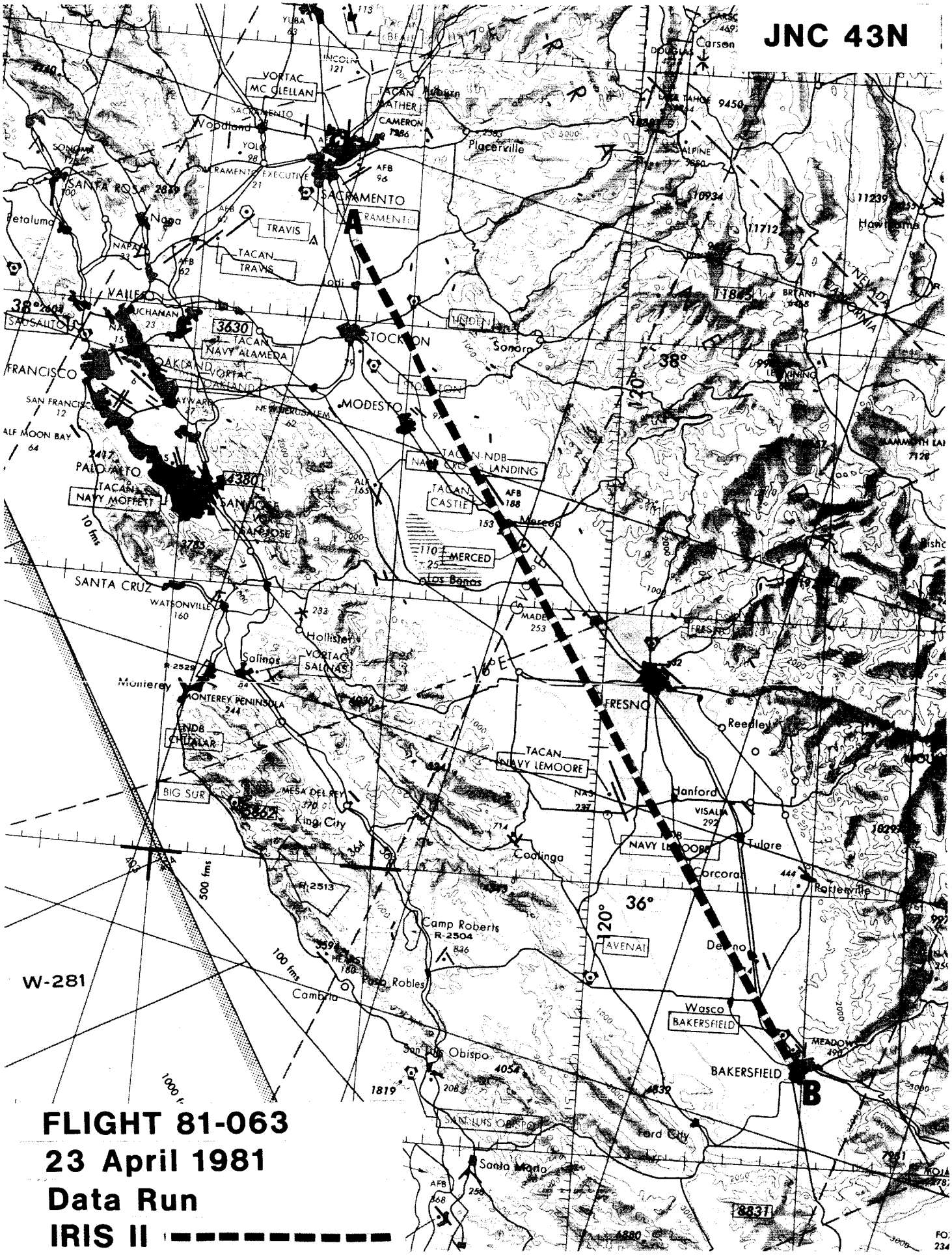
Accession No:	02975
Sensor ID No:	066
Sensor Type:	Itek Iris II
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC.20C
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/250
No. of Frames:	203
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-063

This flight was a functional check flight of the IRIS II Panoramic Camera flown over the San Joaquin Valley, California (see Track Map).

The entire area was cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


JNC 43N
VORTAC MC CLELLAN
TACAN MATHER
CAMERON
SACRAMENTO
Woodland
Placerville
SANTA ROSA
Petaluma
Napa
TRAVIS
TACAN TRAVIS
Lodi
VALLEJO
SAUSALITO
3630
TACAN NAVY ALAMEDA
STOCKTON
Sonora
OAKLAND VORTAC
OAKLAND
SAN FRANCISCO
MODESTO
HALF MOON BAY
PALO ALTO
TACAN NAVY MOFFETT
4380
SAN JOSE
10 fms
SANTA CRUZ
WATSONVILLE
Hollister
Salinas
VORTAC SALINAS
Monterey
MONTEREY PENINSULA
R-2529
CHUALAR
BIG SUR
MESA DEL REY
King City
R-2513
500 fms
100 fms
W-281
Camp Roberts
R-2504
Paso Robles
Cambria
San Luis Obispo
4054
1819
SAN LUIS OBISPO
Santa Maria
AFB
8831
4880
MERCED
Los Banos
TACAN CASTILE
AFB
Merced
FRESNO
Reedley
TACAN NAVY LEMOORE
Hanford
VISALIA
Coalinga
Tulare
Orcora
Roficrville
AVENAL
Delano
Wasco
BAKERSFIELD
MEADOW
Ford City
38°
120°
36°
A
B
FLIGHT 81-063
23 April 1981
Data Run
IRIS II

FLIGHT SUMMARY REPORT

Flight No: 81-074

Date: 27 May 1981

FSR No: 1508

Julian Date: 147

Sensor Package: RC-10

Aircraft No: 5

Purpose of Flight: #0698 Support
Requestor: McKain

Area(s) Covered: Oregon/Washington

SENSOR DATA

Accession No: 02977

Sensor ID No: 031

Sensor Type: RC-10

Focal Length: 6"
153.46mm

Film Type: Aerochrome Infrared,
SO-198

Filtration: Wratten 12 + 2.2AV

Spectral Band: 510-900nm

f Stop: 5.6

Shutter Speed: 1/250

No. of Frames: 14

% Overlap: 60

Quality: Excellent

Remarks: ----

FLIGHT SUMMARY

81-074

This flight was flown in support of Flight Request #0698 (McKain, NASA/JSC) in support of the AgRISTARS program. RC-10 photographic coverage was obtained over selected sites in Oregon and Washington.

The entire area was cloud-free. No annotation is imaged on the frames. Times were taken from the pilots log. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

FLIGHT SUMMARY REPORT

Flight No: 81-075 **Date:** 28 May 1981

FSR No: 1499 **Julian Date:** 148

Sensor Package: A-4 Configuration **Aircraft No:** 5

Purpose of Flight: #0838 Support
Requestor: Griffin

Area(s) Covered: Twin Falls, Idaho

SENSOR DATA

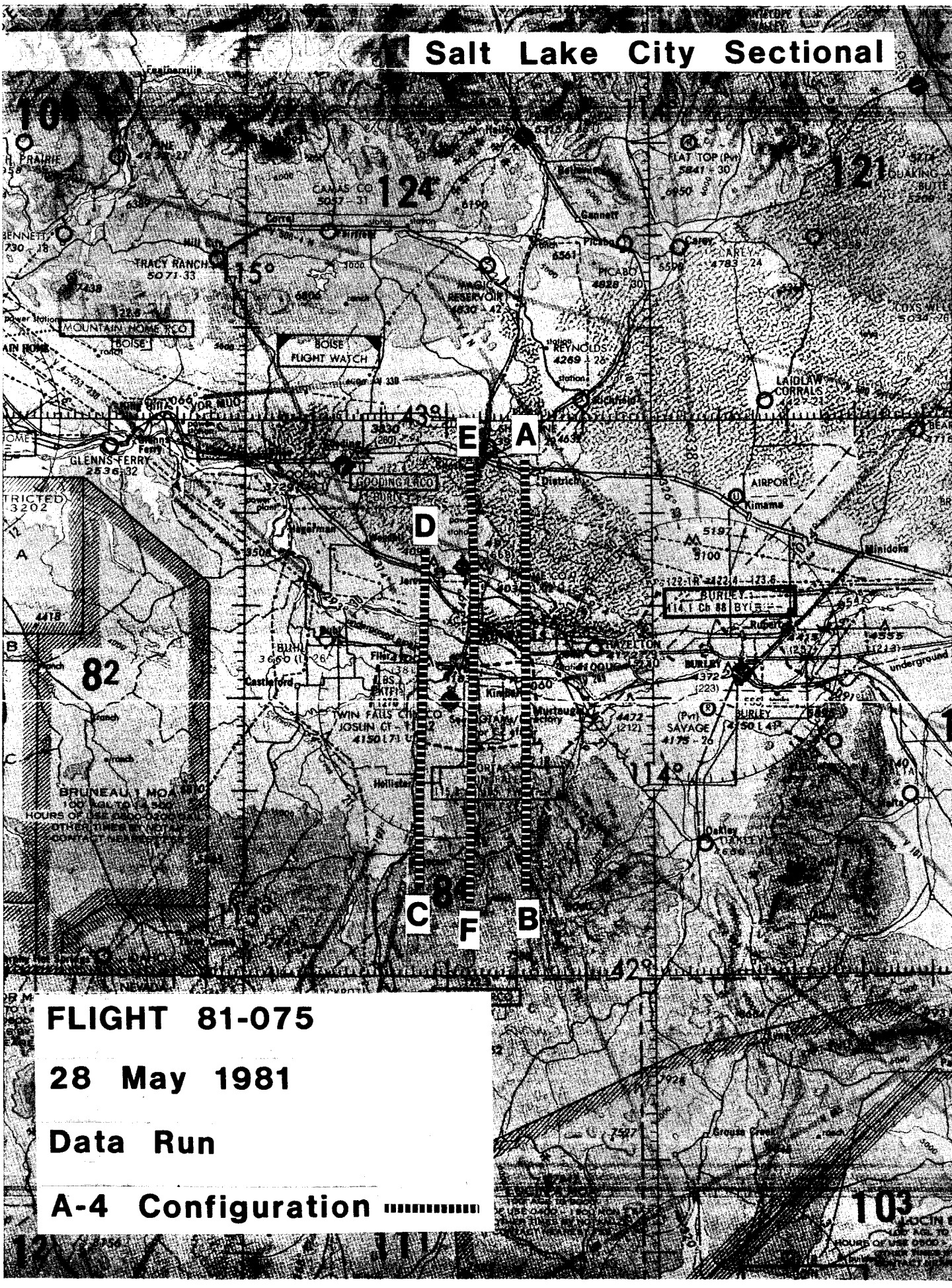
Accession No:	02978	02979
Sensor ID No:	034	039
Sensor Type:	RC-10	HR-732
Focal Length:	12" 304.66mm	24" 609.6mm
Film Type:	Aerochrome Infrared SO-193	Aerochrome Infrared SO-193
Filtration:	Wratten 12	Wratten 12 + CC.10B
Spectral Band:	510-900nm	510-900nm
f Stop:	8	8
Shutter Speed:	1/250	1/250
No. of Frames:	43	71
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-075

This flight was flown in support of Flight Request #0838 (Griffin, NASA/ERL) under the FY 1981 Airborne Instrumentation Research Program (AIRP). A-4 Configuration photographic coverage was obtained over Twin Falls, Idaho.

The entire area was cloud-free. Data annotation is only imaged on those frames triggered by the intervalometer. No annotation is imaged on single pulse frames. No camera or processing malfunctions were noted and the quality of the data is rated as excellent.


Salt Lake City Sectional
FLIGHT 81-075
28 May 1981
Data Run
A-4 Configuration
A
B
C
D
E
F
BOISE FLIGHT WATCH
MOUNTAIN HOME RCO
GOODING RCO
TWIN FALLS CHICAGO RCO
BURLEY
BRUNEAU 1 MOA
GLENNS FERRY
TRACY RANCH
REYNOLDS
PICABO
CAREY
FLAT TOP (Pvt)
LAIDLAW CORRALS
AIRPORT
SAVAGE
HAZELTON
Kimama
Minidoka
Hollister
Castleford
Kimberly
Oakley
Albion
Malta
NEVADA
UTAH

FLIGHT SUMMARY REPORT

Flight No: 81-079

Date: 8 June 1981

FSR No: 1503

Julian Date: 159

Sensor Package: Itek Iris II
Aerosol Particulate Sampler (APS)
Knollenberg Probe (KP)

Aircraft No: 5

Purpose of Flight: #0902 Support (Weber)
#0047 Support (Ferry)
#0792 Support (Pollack)

Area(s) Covered: Southern California

SENSOR DATA

Accession No:	02983	---	---
Sensor ID No:	066	024	068
Sensor Type:	Itek Iris II	APS	KP
Focal Length:	24" 609.6mm	---	---
Film Type:	High Definition Aerial Film, 3414	---	---
Filtration:	Wratten 21	---	---
Spectral Band:	540-700nm	---	---
f Stop:	3.5	---	---
Shutter Speed:	1/230	---	---
No. of Frames:	590	---	---
% Overlap:	60	---	---
Quality:	Excellent	---	---
Remarks:	140° FOV	Non-imaging sensor	Non-imaging sensor

FLIGHT SUMMARY

81-079

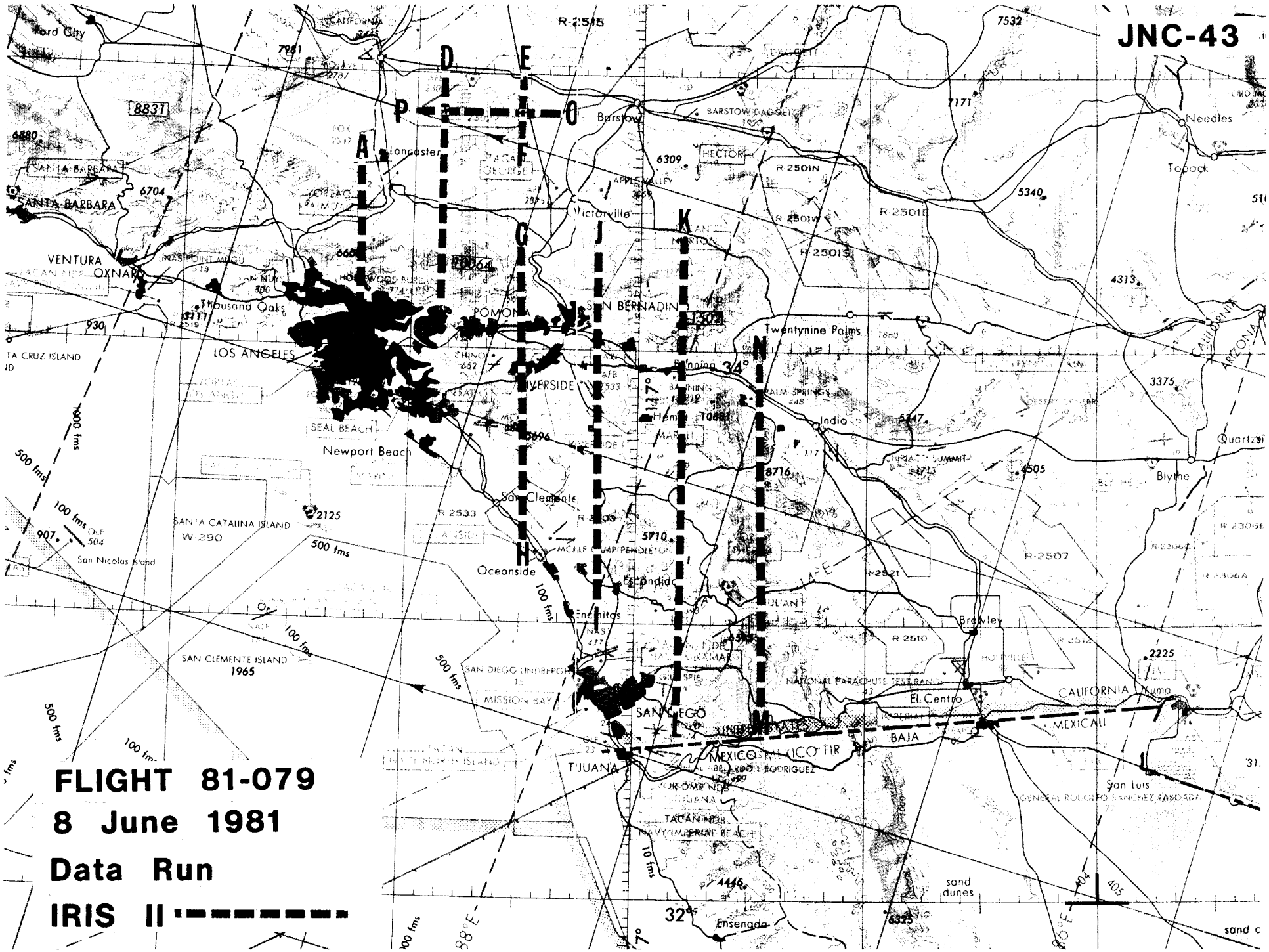
This flight was flown in support of Flight Requests #0902 (Weber, USFS), #0047 (Ferry, NASA/ARC) and #0792 (Pollack, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). The Itek Iris II panoramic camera (140° FOV) was utilized to acquire photographic data over southern California (see Track Map). Aerosol Particulate Sampler (APS) and the Knollenberg Probe (KP) were also flown but are not depicted on the track map.

Minor fog was encountered along the coast. The rest of the area was clear. Because of high albedo, data over the Mojave Desert was slightly overexposed. Due to thermal instability, the data is defocused at the beginning of the flight and improved as the flight progressed.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.

The Knollenberg Probe is a particle size spectrometer experiment containing three basic sybsystems; a 2-D grey spectrometer probe, an active scattering aerosol spectrometer probe, and a data acquisition and recording system.

The 2-D spectrometer is a shadow graph imaging instrument designed for sizing particles of 25-6000 micrometers at aircraft velocity. It utilizes a laser to illuminate particles whose shadows are imaged onto a photodiode array and are sized as an integral number of occulted elements. Particle image information can be collected at a rate of 128 million bits per second. Automatic data compression is accomplished by recording data only when particles are present. The active scattering aerosol spectrometer covers a size range of 0.1 to 6.1 micrometers in 16 size classes.


JNC-43
FLIGHT 81-079
8 June 1981
Data Run
IRIS II
A
D
E
P
O
F
G
J
K
H
N
M
L
Ford City
Lancaster
Barstow
Needles
Topock
SANTA BARBARA
VENTURA
OXNARD
Thousand Oaks
Victorville
SAN BERNADINO
POMONA
Twentynine Palms
LOS ANGELES
RIVERSIDE
Banning
Indio
Blythe
SEAL BEACH
Newport Beach
San Clemente
SANTA CATALINA ISLAND
San Nicolas Island
Oceanside
SAN CLEMENTE ISLAND
1965
SAN DIEGO
Encinitas
Brawley
El Centro
CALIFORNIA
MEXICALI
BAJA
MEXICO
TIJUANA
Ensenada
San Luis
sand dunes
117°
34°
32°
100 fms
500 fms
1000 fms
10 fms

FLIGHT SUMMARY REPORT

Flight No: 81-093 **Date:** 1 June 1981

FSR No: 1500 **Julian Date:** 152

Sensor Package: RC-10 **Aircraft No:** 5

Purpose of Flight: AIRP Support
Requestor: Millard

Area(s) Covered: Imperial Valley, CA

SENSOR DATA

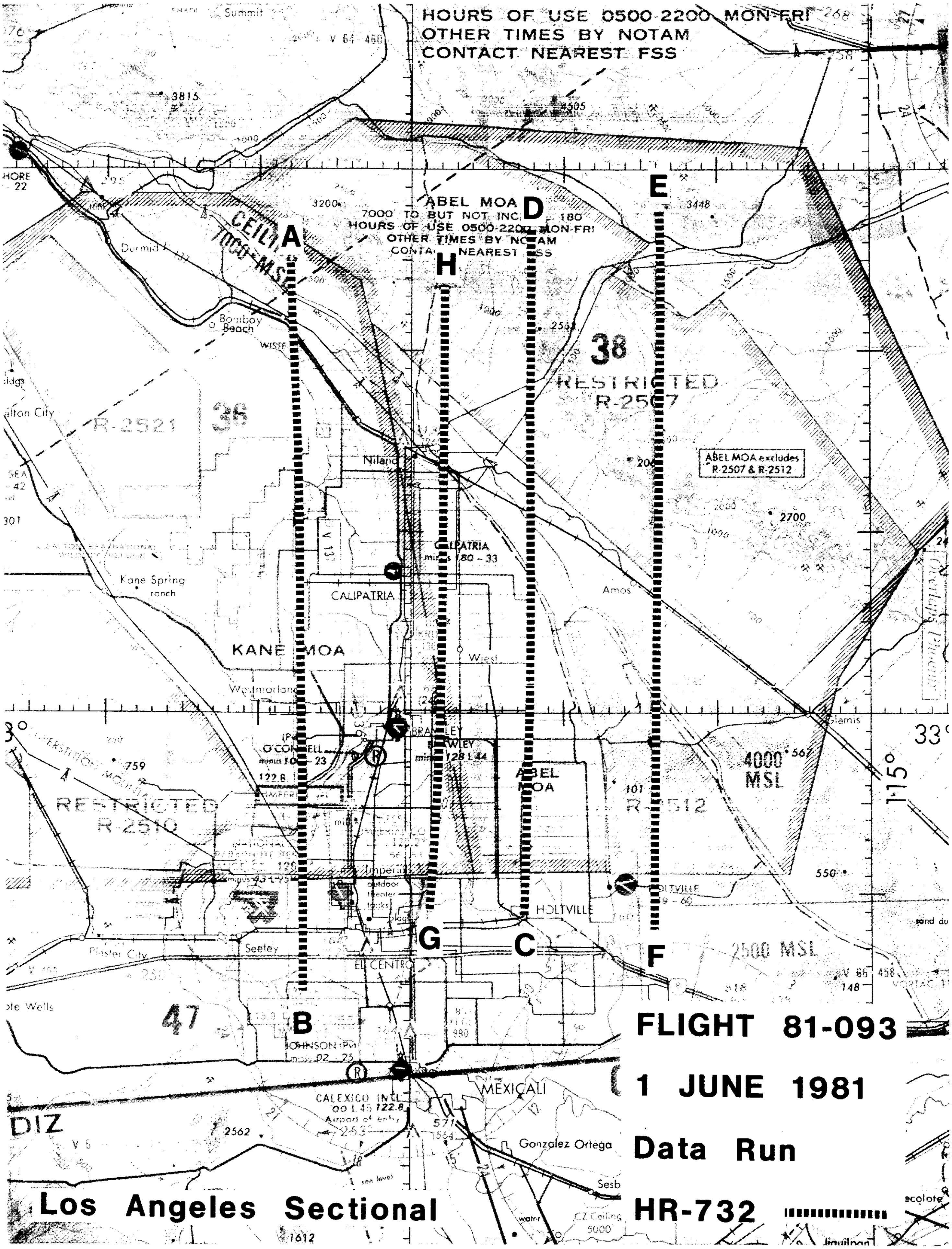
Accession No:	02980	---
Sensor ID No:	039	024
Sensor Type:	HR-732	APS
Focal Length:	24" 609.6mm	---
Film Type:	Aerochrome Infrared SO-193	
Filtration:	Wratten 12 + CC.10B	
Spectral Band:	510-900nm	
f Stop:	10	
Shutter Speed:	1/250	
No. of Frames:	84	
% Overlap:	60	
Quality:	Excellent	
Remarks:	---	Non imaging sensor

FLIGHT SUMMARY

81-093

This flight was flown in support of the FY 1981 Airborne Instrumentation Program (AIRP) at the request of John Millard (NASA-Ames). HR-732 coverage was obtained over Imperial Valley, California.

The entire area was cloud free. No camera or processing malfunctions were noted and the quality of the data is rated as excellent.


HOURS OF USE 0500-2200 MON-FRI
OTHER TIMES BY NOTAM
CONTACT NEAREST FSS
ABEL MOA
7000 TO BUT NOT INC. 180
HOURS OF USE 0500-2200 MON-FRI
OTHER TIMES BY NOTAM
CONTACT NEAREST FSS
A
B
C
D
E
F
G
H
38
RESTRICTED
R-2507
R-2521
36
ABEL MOA excludes R-2507 & R-2512
Niland
CALIPATRIA
KANE MOA
Westmorland
BRAWLEY
ABEL MOA
RESTRICTED
R-2510
R-2512
4000 MSL
2500 MSL
Imperial
HOLTVILLE
Seeley
EL CENTRO
Plaster City
47
MEXICALI
CALEXICO INTL
Gonzalez Ortega
Kane Spring ranch
Bombay Beach
Durmid
Salton City
Amos
Glamis
Summit
115°
33°
FLIGHT 81-093
1 JUNE 1981
Data Run
HR-732
Los Angeles Sectional

FLIGHT SUMMARY REPORT

Flight No: 81-094

Date: 2 June 1981

FSR No: 1501

Julian Date: 153

Sensor Package: RC-10

Aircraft No: 4

Purpose of Flight: Camera/Hatch Compatibility Test Flight

Area(s) Covered: Southern Alameda and Santa Clara counties, California

SENSOR DATA

Accession No: 02981

Sensor ID No: 031

Sensor Type: RC-10

Focal Length: 6"
153.05mm

Film Type: Aerochrome Infrared, SO-193

Filtration: Wratten 12 + 2.2AV

Spectral Band: 510-900nm

f Stop: 5.6

Shutter Speed: 1/250

No. of Frames: 26

% Overlap: 60

Quality: Excellent

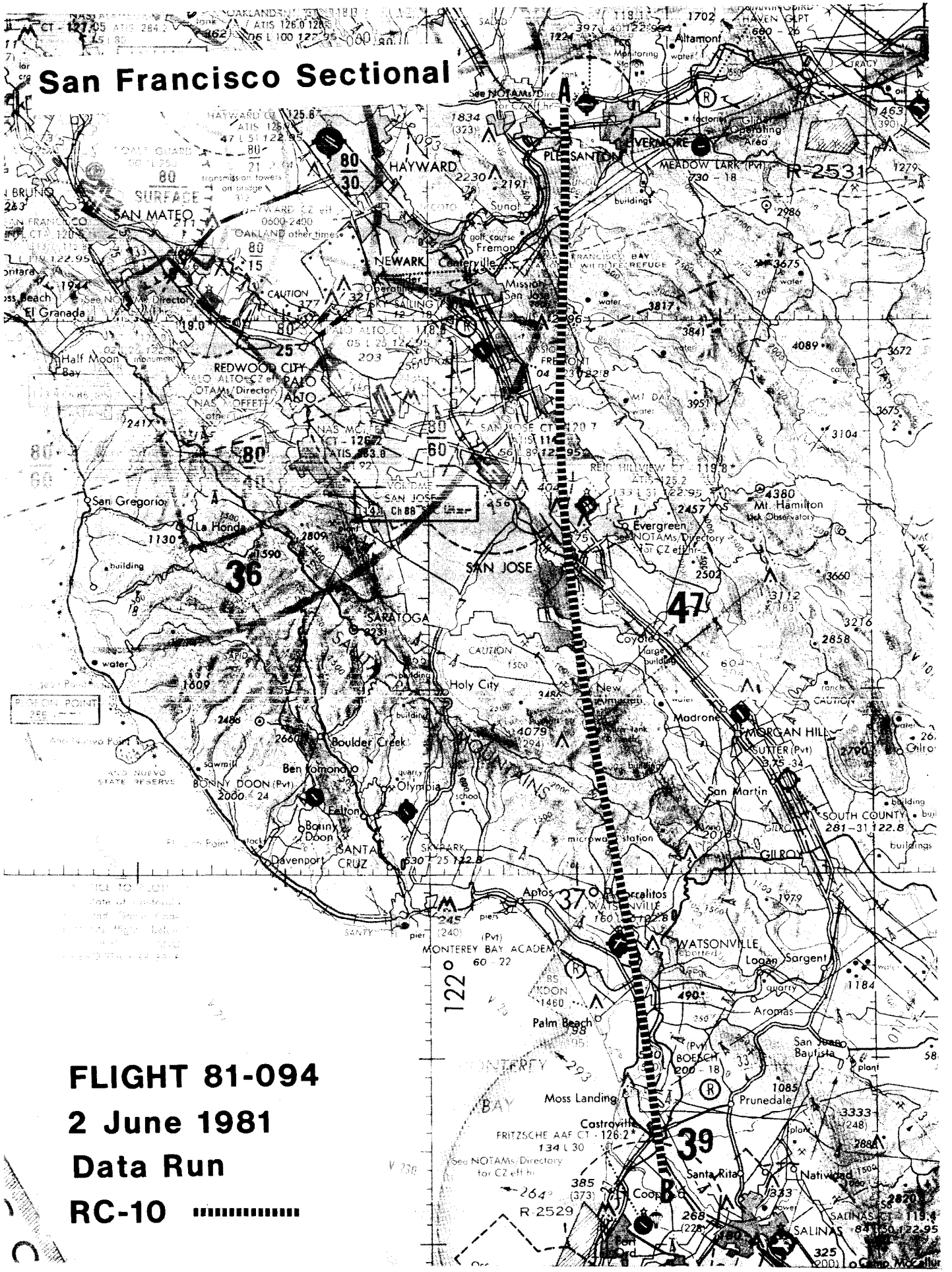
Remarks: ---

FLIGHT SUMMARY

81-094

This flight was a functional check flight of the RC-10 camera with the IRIS hatch flown over Southern Alameda and Santa Clara counties in California (see Track Map).

Minor to 20% cumulus cloud cover was encountered over the last half of the flight. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


San Francisco Sectional
SAN MATEO
HAYWARD
NEWARK
Centerville
Fremont
Sunol
Altamont
LIVERMORE
PLEASANTON
MEADOW LARK (Pvt)
Operating Area
R-2531
Mission San Jose
FREMONT
MT DAY
REDWOOD CITY
PALO ALTO
Half Moon Bay
El Granada
San Gregorio
La Honda
SAN JOSE
Evergreen
Mt. Hamilton
Lick Observatory
SARATOGA
Coyote
Holy City
New Almaden
Madrone
MORGAN HILL
SUTTER (Pvt)
San Martin
SOUTH COUNTY
GILROY
Boulder Creek
Ben Lomond
Olympia
Felton
Bonny Doon
SANTA CRUZ
Davenport
BONNY DOON (Pvt)
Aptos
Watsonville
MONTEREY BAY ACADEM
WATSONVILLE
Logan
Sargent
Aromas
Palm Beach
San Juan Bautista
BOESCH (Pvt)
Moss Landing
Prunedale
Castroville
FRITZSCHE AAF
Santa Rita
Natividad
SALINAS
Camp McCallum
122°
36
47
39
FLIGHT 81-094
2 June 1981
Data Run
RC-10

FLIGHT SUMMARY REPORT

Flight No: 81-096

Date: 5 June 1981

FSR No: 1502

Julian Date: 156

Sensor Package: Itek Iris II
Aerosol Particulate Sampler (APS)
Knollenberg Probe (KP)

Aircraft No: 5

Purpose of Flight: #0902 Support (Weber)
#0047 Support (Ferry)
#0792 Support (Pollack)

Area(s) Covered: Southern California

SENSOR DATA

Accession No:	02982	---	---
Sensor ID No:	070	024	068
Sensor Type:	Itek Iris II	APS	KP
Focal Length:	24" 609.6mm	---	---
Film Type:	High Definition Aerial Film, 3414	---	---
Filtration:	Wratten 21	---	---
Spectral Band:	540-700nm	---	---
f Stop:	3.5	---	---
Shutter Speed:	1/230	---	---
No. of Frames:	489	---	---
% Overlap:	60	---	---
Quality:	Excellent	---	---
Remarks:	90° FOV	Non-imaging sensor	Non-imaging sensor

FLIGHT SUMMARY

81-096

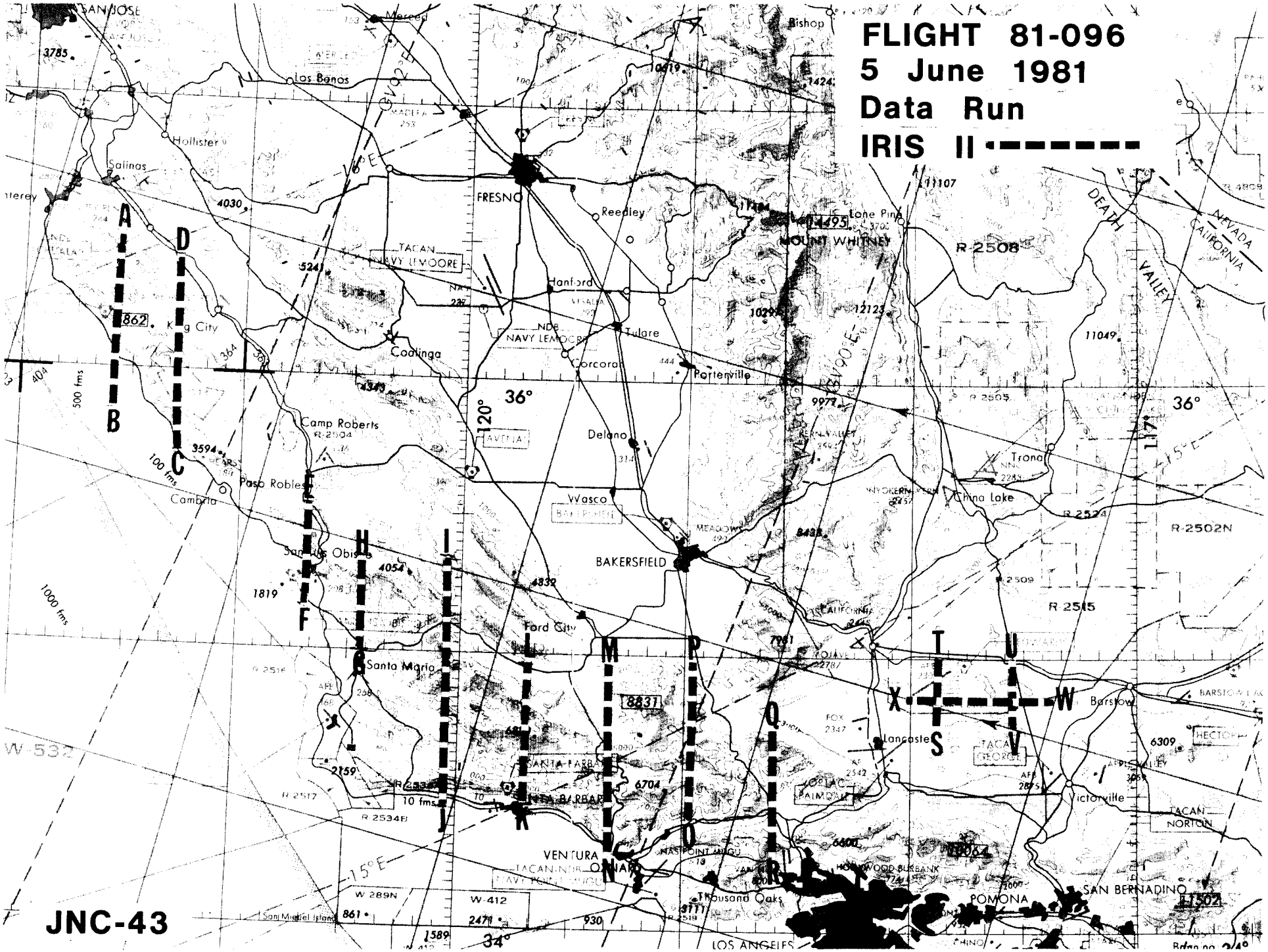
This flight was flown in support of Flight Requests #0902 (Weber, USFS), #0047 (Ferry, NASA/ARC) and #0792 (Pollack, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). The Itek Iris II panoramic camera (90° FOV) was utilized to acquire photographic data over Southern California (see Track Map). Aerosol Particulate Sampler (APS) and the Knollenberg Probe (KP) were also flown but are not depicted on the track map.

Minor fog was encountered along the coast. The rest of the area was clear. Because of high albedo, data over the Mojave Desert is slightly overexposed. Due to thermal instability, the data is defocused at the beginning of the flight and improved as the flight progressed. Because of the modified scan angle, the data block is imaged one frame after the exposure, consequently the time on the data block for the last frame on a flight line is the actual time of the first frame of the next flight line.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.

The Knollenberg Probe is a particle size spectrometer experiment containing three basic subsystems; a 2-D grey spectrometer probe, an active scattering aerosol spectrometer probe, and a data acquisition and recording system.

The 2-D spectrometer is a shadow graph imaging instrument designed for sizing particles of 25-6000 micrometers at aircraft velocity. It utilizes a laser to illuminate particles whose shadows are imaged onto a photodiode array and are sized as an integral number of occulted elements. Particle image information can be collected at a rate of 128 million bits per second. Automatic data compression is accomplished by recording data only when particles are present. The active scattering aerosol spectrometer covers a size range of 0.1 to 6.1 micrometers in 16 size classes.


FLIGHT 81-096
5 June 1981
Data Run
IRIS II
JNC-43
A
B
C
D
F
H
K
M
O
P
Q
R
S
T
U
V
W
X
FRESNO
BAKERSFIELD
Hanford
Visalia
Tulare
Corcoran
Porterville
Reedley
Delano
Wasco
Coalinga
Camp Roberts
R-2504
Paso Robles
Cambria
Santa Maria
Ford City
Lone Pine
MOUNT WHITNEY
R-2508
DEATH VALLEY
NEVADA
CALIFORNIA
Trona
China Lake
R-2502N
R 2515
R 2524
Barstow
Lancaster
Victorville
TACAN GEORGE
TACAN NORTON
VENTURA
TACAN-NDB OXNARD
NAVY POINT MUGU
Thousand Oaks
POMONA
SAN BERNADINO
LOS ANGELES
SANTA BARBARA
R 2534B
R 2517
W 289N
W-412
San Miguel Island
Las Banos
Hollister
Salinas
SAN JOSE
Merced
Bishop
Lone Pine
TACAN NAVY LEMOORE
NDB NAVY LEMOORE
500 fms
100 fms
10 fms
1000 fms
120°
117°
36°
34°
15°E
16°E
17°E

FLIGHT SUMMARY REPORT

Flight No: 81-101

Date: 12 June 1981

FSR No: 1504

Julian Date: 163

Sensor Package: RC-10
Aerosol Particulate Sampler

Aircraft No: 5

Purpose of Flight: #0911 Support
Requestor: Montanari

#0047 Support
Requestor: Ferry

Area(s) Covered: Nevada & Utah

SENSOR DATA

Accession No:	02984	---
Sensor ID No:	034	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.66mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/200	---
No. of Frames:	363	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

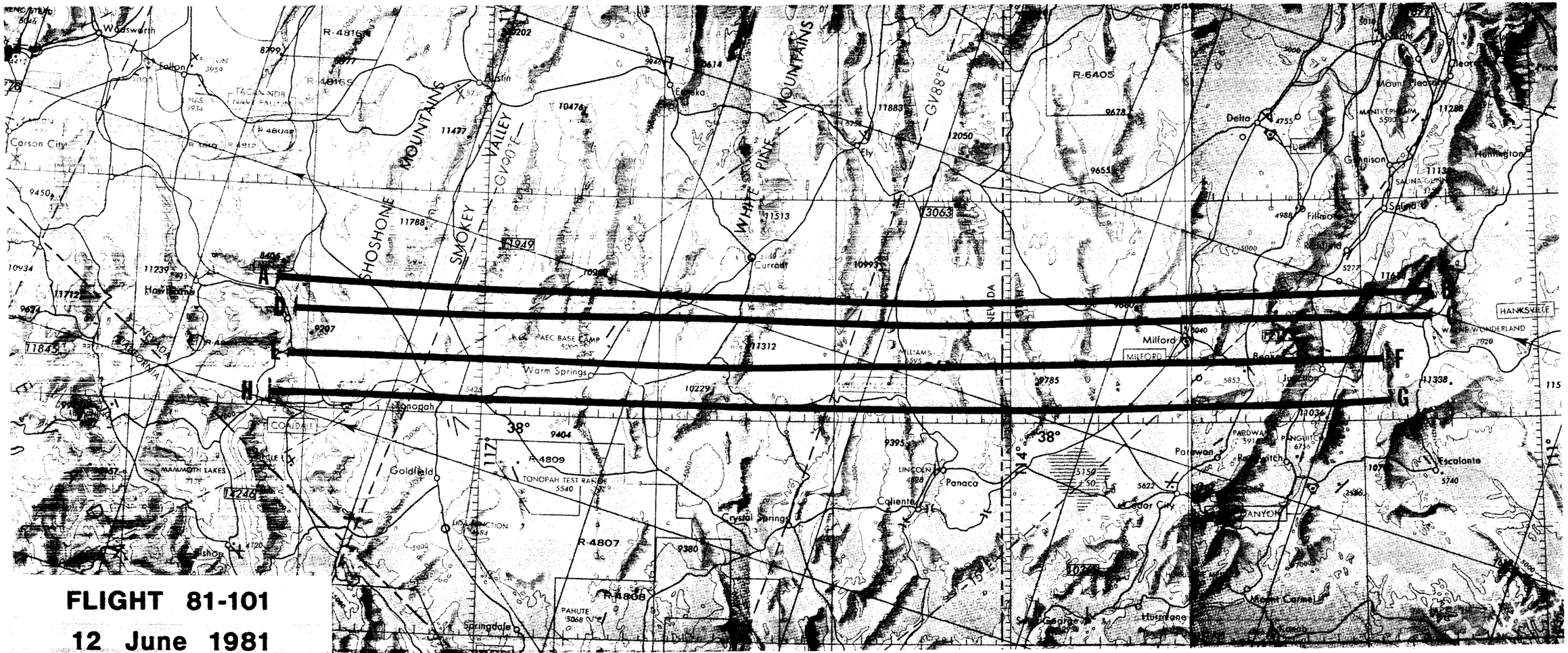
FLIGHT SUMMARY

81-101

This flight was flown in support of Flight Requests #0911 (Montanari, US Fish and Wildlife Service) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). RC-10 coverage was acquired over Nevada and Utah (see Track Map). Additionally, APS data was acquired for the full time at altitude.

The entire area was nearly cloud-free with only minor cumulus encountered. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.



FLIGHT 81-101

12 June 1981

Data Run

RC-10 ——

JNC 43N

FLIGHT SUMMARY REPORT

Flight No: 81-103

Date: 18 June 1981

FSR No: 1512

Julian Date: 169

Sensor Package: IRIS II Panoramic Camera

Aircraft No: 4

Purpose of Flight: #0903 Support
Requestor: Weber

Area(s) Covered: Northeastern U.S.

SENSOR DATA

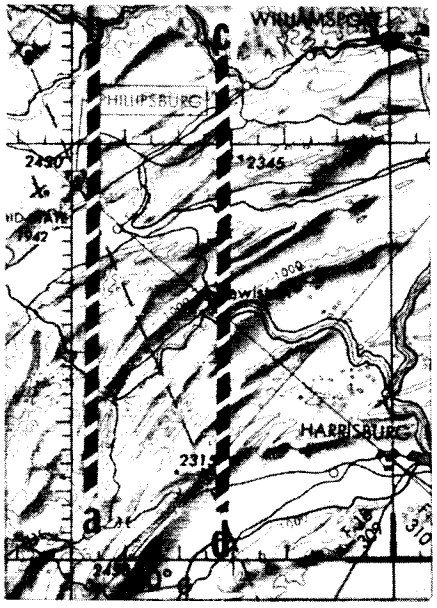
Accession No:	02990
Sensor ID No:	066
Sensor Type:	Itek IRIS II
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .10C
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/350
No. of Frames:	922
% Overlap:	60
Quality:	Excellent
Remarks:	---

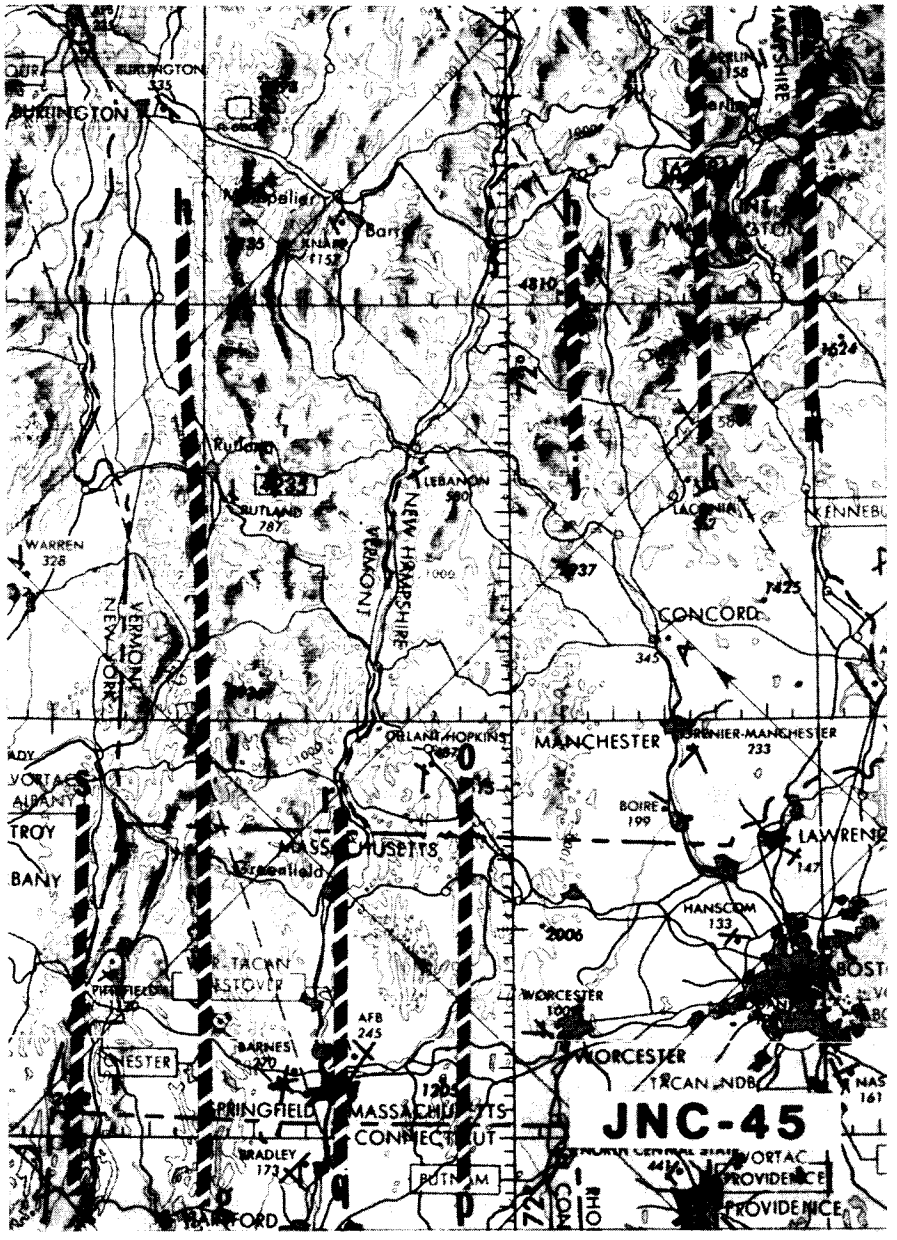
FLIGHT SUMMARY

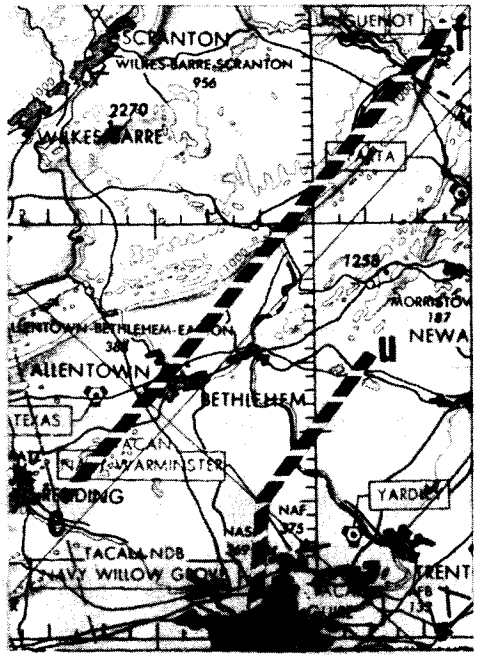
81-103

This flight was flown in support of Flight Request #0903 (Weber, US Fish and Wildlife Service) under the FY 1981 Airborne Instrumentation Research Program (AIRP). The Itek Iris II panoramic camera (140° FOV) was utilized to acquire photography over portions of the northeastern United States.

Minor to moderate cumulus were encountered throughout the flight (see Flight Line Data). Light leaks were encountered on the first and last frames of each flight line due to the film sitting in caged position. Also there were three occasions where the film mismetered. There were no processing malfunctions and the quality of the data is rated excellent.







FLIGHT 81-103
18 June 1981
Data Run
Itek Iris II

FLIGHT SUMMARY REPORT

Flight No: 81-105 **Date:** 21 June 1981

FSR No: 1509 **Julian Date:** 172

Sensor Package: RC-10 **Aircraft No:** 5

Purpose of Flight: #0911 Support
Requestor: Montanari

Area(s) Covered: Nevada/Utah

SENSOR DATA

Accession No: 02987

Sensor ID No: 034

Sensor Type: RC-10

Focal Length: 12"
304.66mm

Film Type: High Definition
Aerochrome Infrared,
SO-131

Filtration: CC .20B

Spectral Band: 510-900nm

f Stop: 4

Shutter Speed: 1/200

No. of Frames: 312

% Overlap: 60

Quality: Excellent

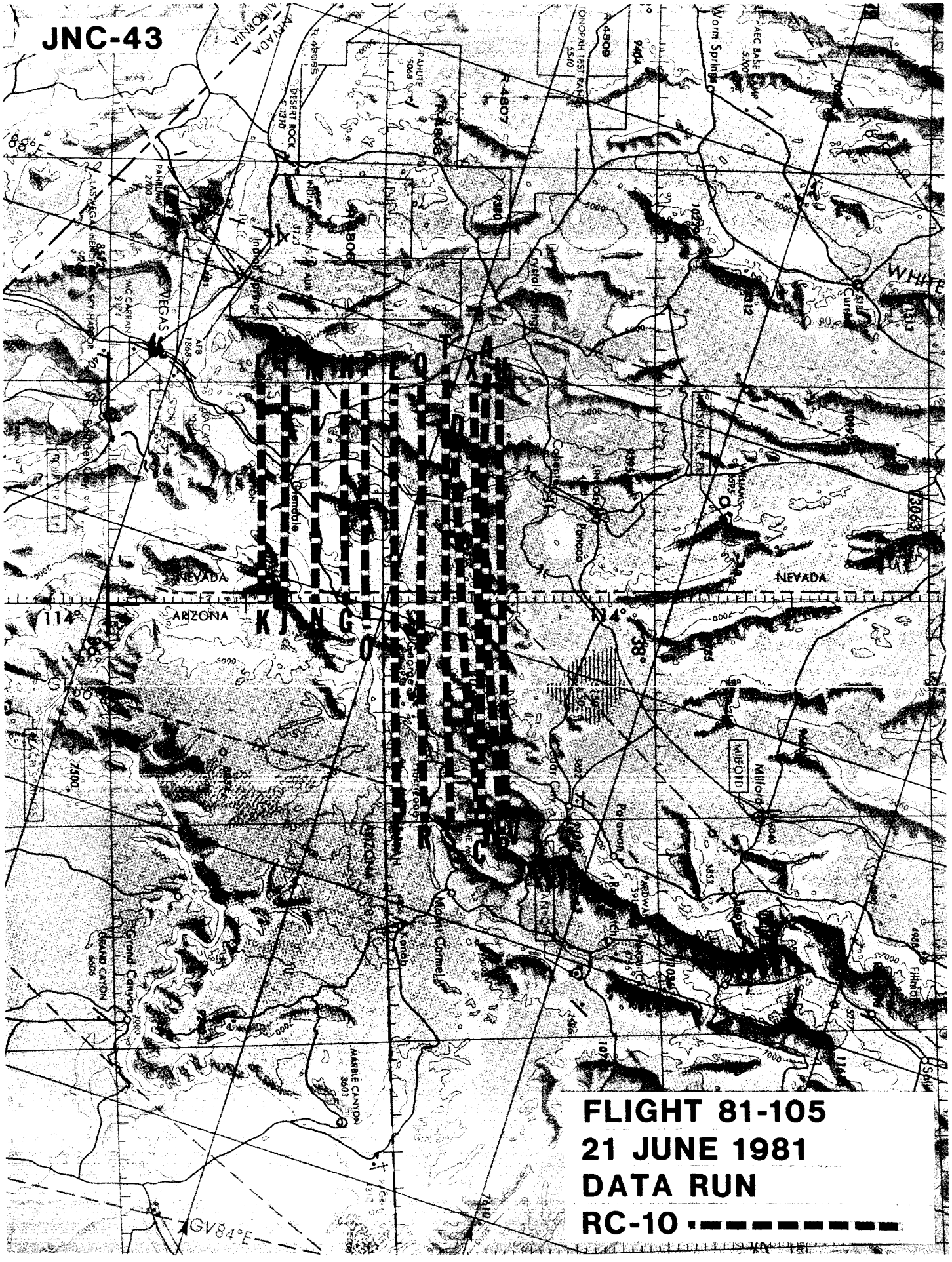
Remarks: ---

FLIGHT SUMMARY

81-105

This flight was flown in support of Flight Request #0911 (Montanari, US Fish & Wildlife Service) under the FY 1981 Airborne Instrumentation Research Program (AIRP).

The RC-10 camera was utilized to acquire photography over portions of Nevada and Utah (see Track Map). The entire area was cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


JNC-43
FLIGHT 81-105
21 JUNE 1981
DATA RUN
RC-10
NEVADA
ARIZONA
LAS VEGAS
GV84°E

FLIGHT SUMMARY REPORT

Flight No: 81-106 **Date:** 20 June 1981

FSR No: 1510 **Julian Date:** 171

Sensor Package: RC-10 **Aircraft No:** 5

Purpose of Flight: #0911 Support
Requestor: Montanari

Area(s) Covered: Nevada

SENSOR DATA

Accession No:	02988
Sensor ID No:	034
Sensor Type:	RC-10
Focal Length:	12" 304.66mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20B
Spectral Band:	510-900nm
f Stop:	4
Shutter Speed:	1/200
No. of Frames:	529
% Overlap:	60
Quality:	Excellent
Remarks:	---

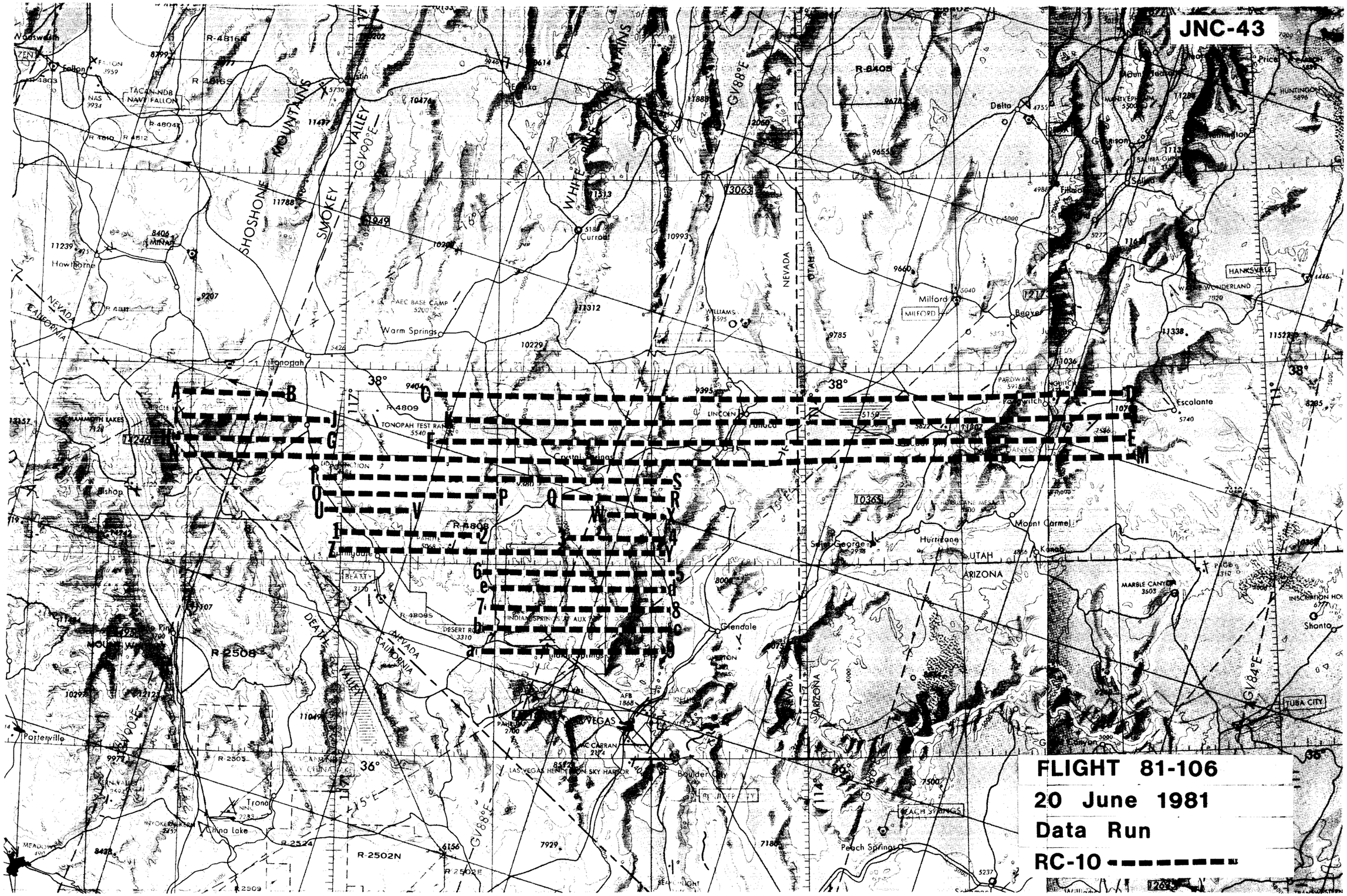
FLIGHT SUMMARY

81-106

This flight was flown in support of Flight Request #0911 (Montanari, US Fish and Wildlife Service) under the FY 1981 Airborne Instrumentation Research Program (AIRP). The RC-10 camera was utilized to acquire photography over portions of Nevada (see Track Map).

The area was virtually cloud-free with the exception of minor cumulus at the eastern most portion of the area. Specific portions of the flight have been removed because of restricted areas.

No processing or camera malfunctions were noted and the quality of the data is rated excellent.


JNC-43
FLIGHT 81-106
20 June 1981
Data Run
RC-10
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C
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Q
R
S
V
X
Y
1
2
6
7
8
a
b
c
d
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f
38°
36°
117°
SHOSHONE MOUNTAINS
SMOKEY VALLEY
WHITE PINES
NEVADA
UTAH
ARIZONA
CALIFORNIA
Fallon
Austin
Ely
Delta
Milford
Beaver
Price
Escalante
Hanksville
Bishop
Mammoth Lakes
Tonopah
Warm Springs
Currant
Hawthorne
Lincoln Junction
Coaldale Junction
Goldfield
Indian Springs
Las Vegas
Boulder City
Peach Springs
Grand Canyon
Hurricane
St. George
Mount Carmel
Tuba City
Shonto
Marble Canyon
Trona
China Lake
Porterville
Meadows
R-4816
R-4804
R-4808N
R-4809
R-4808S
R-2508
R-2502N
R-2502E
R-2524
R-2505
R-2509
R-8405
TACAN-NDB NAVY FALLON
NAS
PAEC BASE CAMP
TONOPAH TEST RANGE
DESERT ROCK
INDIAN SPRINGS AUX
NELLIS AFB
MC CARRAN
LAS VEGAS HENDERSON SKY HARBOR
PAHRUMP
BEATTY
DEATH VALLEY
MINARET
MAMMOTH LAKES
INYOKERN
HUNTINGTON
WONDERLAND
PARDWAN
MOUNT PEREGRINE
MILFORD
WILLIAMS
CANYON
BEACH SPRINGS
SALINA-GYPSUM
GV90°E
GV88°E
GV86°E
GV84°E
GV82°E
GV80°E

FLIGHT SUMMARY REPORT

Flight No: 81-107

Date: 23 June 1981

FSR No: 1511

Julian Date: 174

Sensor Package: RC-10

Aircraft No: 5

Purpose of Flight: #0911 Support
Requestor: Montanari
#0047 Support
Requestor: Ferry

Area(s) Covered: Nevada

SENSOR DATA

Accession No:	02989	---
Sensor ID No:	026	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.97mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/200	---
No. of Frames:	211	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

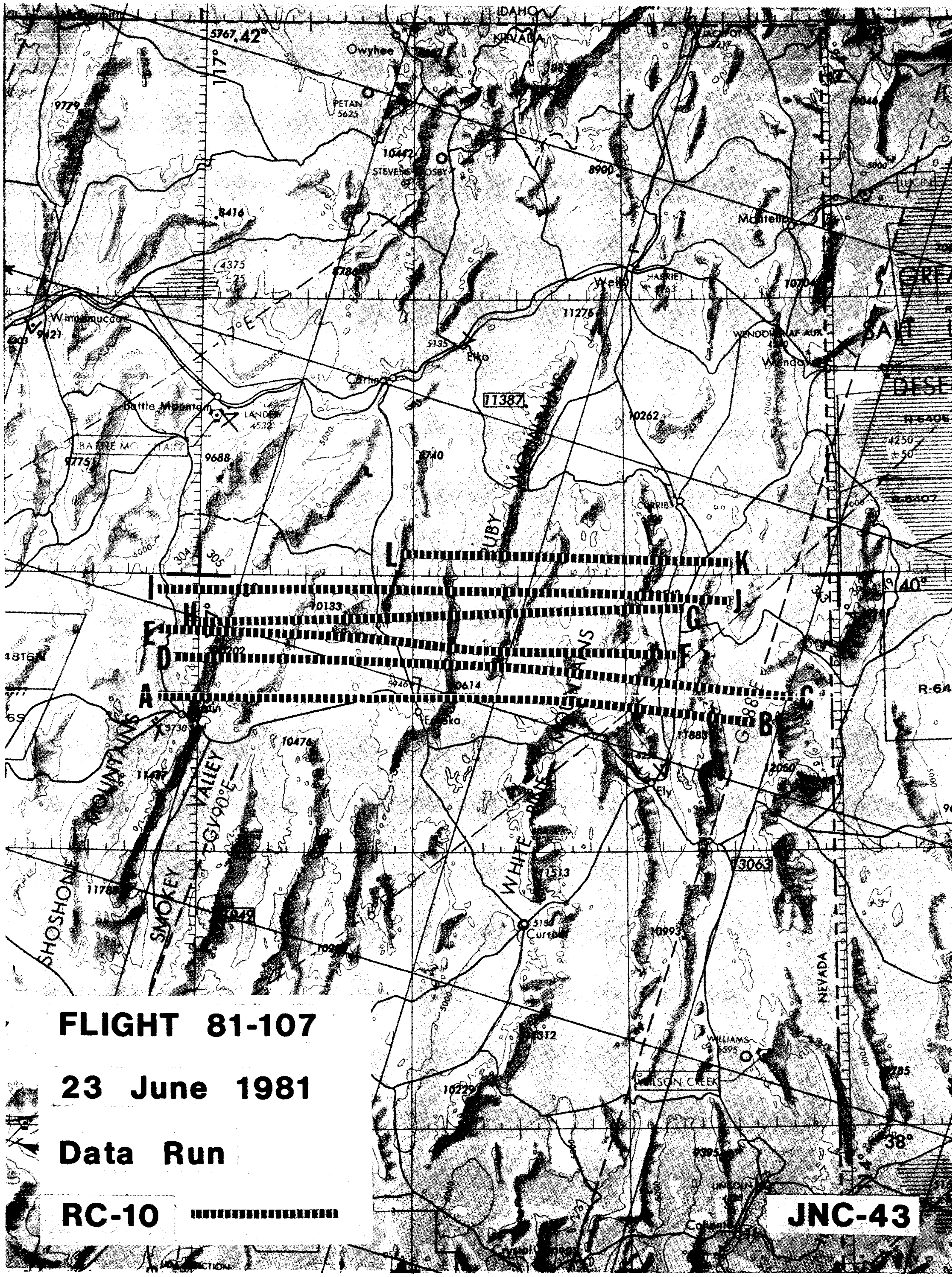
FLIGHT SUMMARY

81-107

This flight was flown in support of Flight Requests #0911 (Montanari, U.S. Fish and Wildlife Service) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). Photographic coverage was obtained over central Nevada (see Track Map). Aerosol Particulate Sampler (APS) data was collected throughout the flight, but is not indicated on the track map.

Some light cumulus clouds were encountered in the frames noted on the flight line data sheet. The imagery is of excellent quality with no camera or processing malfunctions noted.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.



FLIGHT 81-107
23 June 1981
Data Run
RC-10
JNC-43
A
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F
G
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IDAHO
NEVADA
Owyhee
Winnemucca
Battle Mountain
Carlin
Elko
Wells
Wendover
Eureka
Ely
Currant
SHOSHONE MOUNTAINS
SMOKEY VALLEY
WHITE PINE MOUNTAINS
NEVADA
40°
38°
42°
117°

FLIGHT SUMMARY REPORT

Flight No: 81-108

Date: 24 June 1981

FSR No: 1513

Julian Date: 175

Sensor Package: RC-10
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0911 Support
Requestor: Montanari
#0047 Support
Requestor: Ferry

Area(s) Covered: Nevada/Utah

SENSOR DATA

Accession No:	02991	---
Sensor ID No:	026	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.97mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/200	---
No. of Frames:	397	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

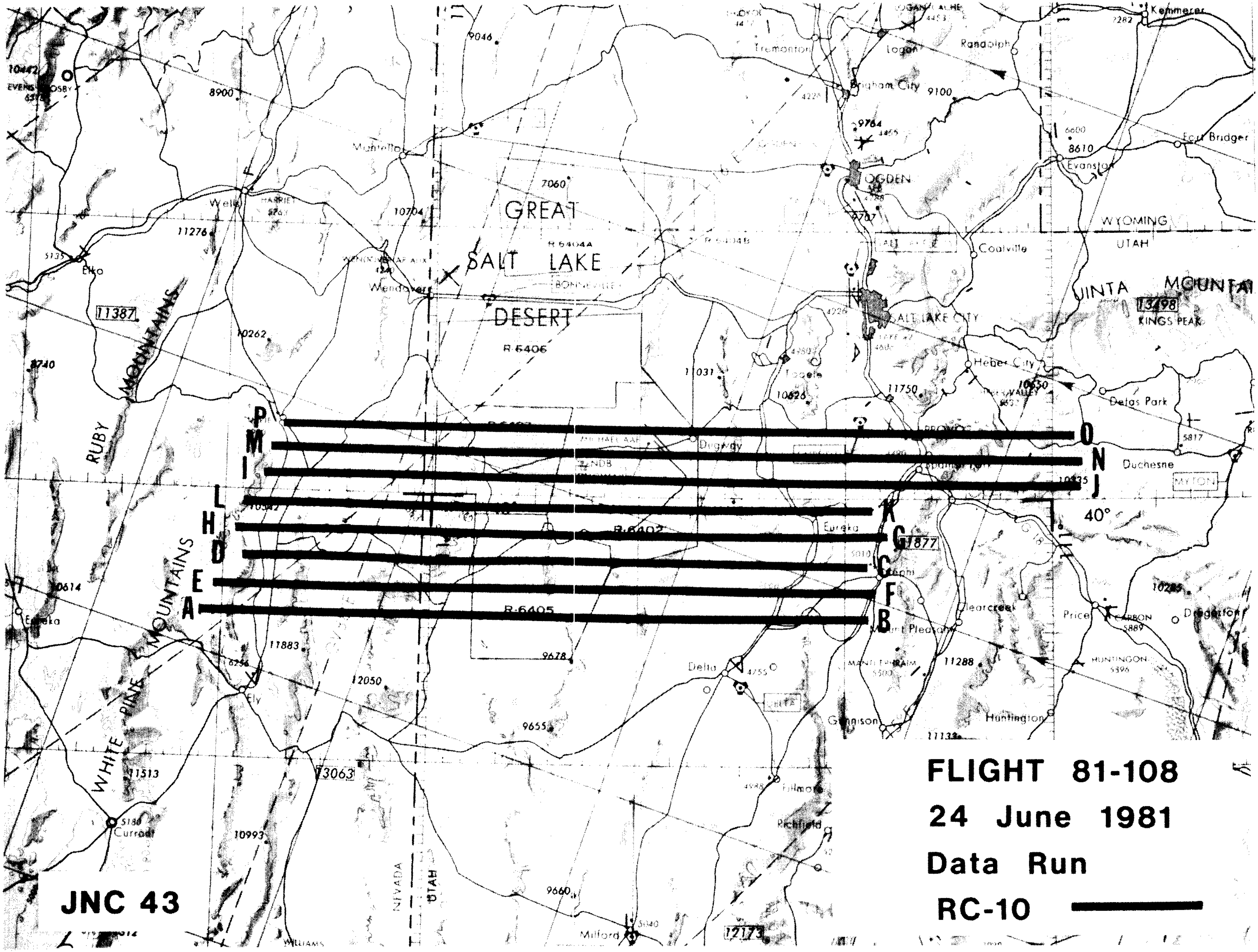
FLIGHT SUMMARY

81-108

This flight was flown in support of Flight Requests #0911 (Montanari, USFWS) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). Photographic data was acquired over portions of Nevada and Utah in support of the National Wetlands Inventory program. Additionally, Aerosol Particulate Sampler (APS) data was acquired throughout the flight, but is not dipicted on the track map.

Minor cumulus cloud was encountered on the last four flight lines. No processing or camera malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.



GREAT SALT LAKE DESERT
UINTA MOUNTAINS
RUBY MOUNTAINS
WHITE PINE MOUNTAINS
WYOMING
UTAH
NEVADA
Kemmerer
Evanston
Randolph
Logan
Brigham City
Tremonton
OGDEN
SALT LAKE CITY
Coalville
Heber City
Duchesne
Tooele
Dugway
Eureka
Nephi
Price
Huntington
Delta
Fillmore
Richfield
Milford
Gunnison
Wendover
Montello
Wells
Elko
Ely
Currant
40°
P M I L H D E A
O N J K G C F B
JNC 43
FLIGHT 81-108
24 June 1981
Data Run
RC-10

FLIGHT SUMMARY REPORT

Flight No: 81-109

Date: 15 June 1981

FSR No: 1505

Julian Date: 166

Sensor Package: RC-10
Aerosol Particulate Sampler (APS)

Aircraft No: 5

Purpose of Flight: #0911 Support
Requestor: Montanari

#0047 Support
Requestor: Ferry

Area(s) Covered: Nevada/Utah

SENSOR DATA

Accession No:	02985	---
Sensor ID No:	034	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.66mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/200	---
No. of Frames:	541	---
% Overlap:	60	---
Quality:	Good	---
Remarks:	---	Non-imaging sensor

FLIGHT SUMMARY

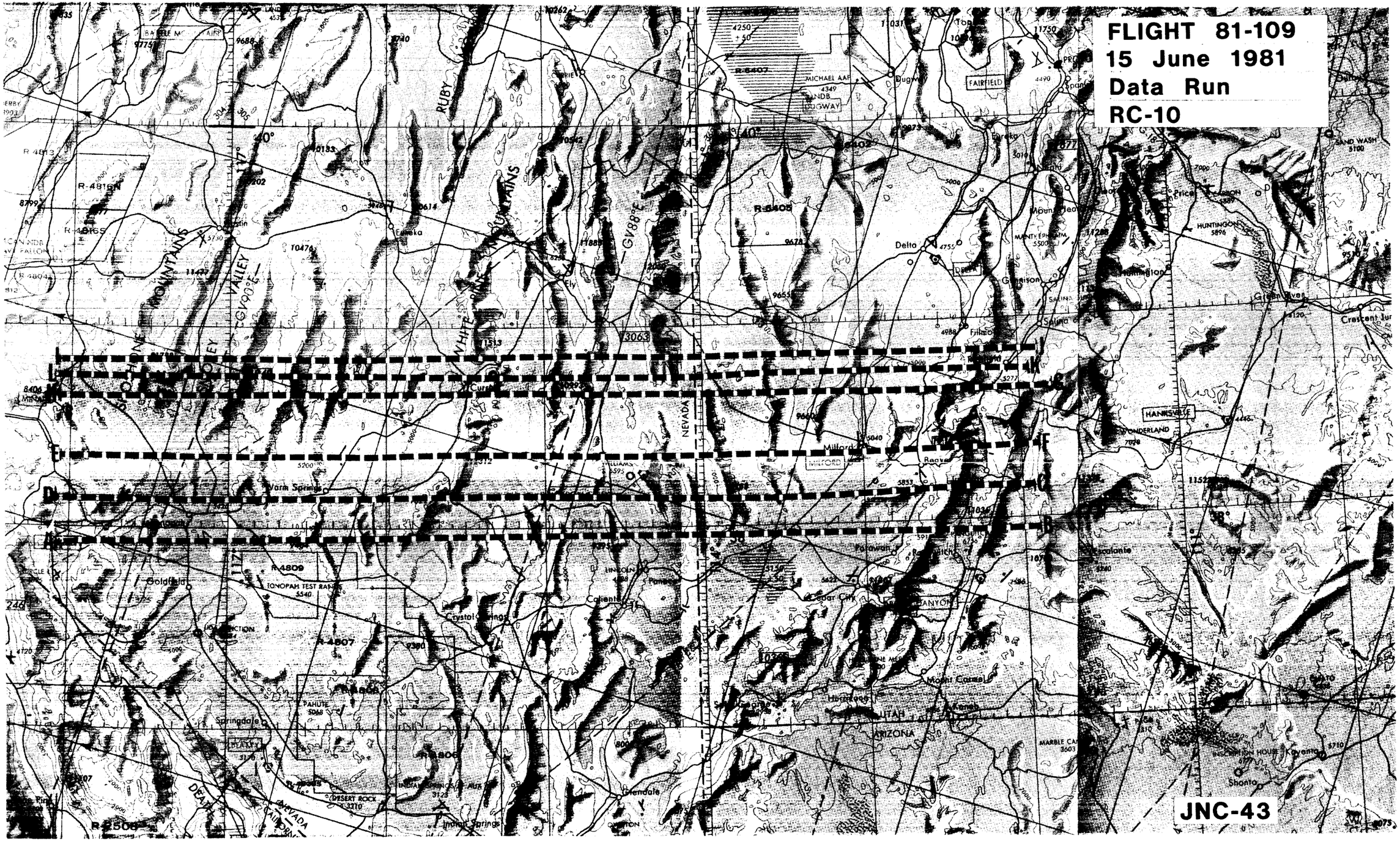
81-109

This flight was flown in support of Flight Requests #0911 (Montanari, US Fish and Wildlife Service) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). The RC-10 camera was utilized to acquire photography over portions of Nevada and Utah (see Track Map). The Aerosol Particulate Sampler (APS) was also flown but is not depicted on the track map.

Very minor cumulus was encountered on one flight line (see Flight Line Data sheet). There was a partial defocus throughout the flight due to color compensation filter buckle. There were no processing malfunctions and the quality of the data is rated good.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.

FLIGHT 81-109
15 June 1981
Data Run
RC-10



FLIGHT SUMMARY REPORT

Flight No: 81-115

Date: 19 June 1981

FSR No: 1507

Julian Date: 170

Sensor Package: RC-10

Aircraft No: 5

Purpose of Flight: #0911 Support
Requestor: Montanari

Area(s) Covered: Nevada & Utah

SENSOR DATA

Accession No: 02986

Sensor ID No: 034

Sensor Type: RC-10

Focal Length: 12"
304.66mm

Film Type: High Definition
Aerochrome Infrared,
SO-131

Filtration: CC .20B

Spectral Band: 510-900nm

f Stop: 4

Shutter Speed: 1/200

No. of Frames: 478

% Overlap: 60

Quality: Excellent

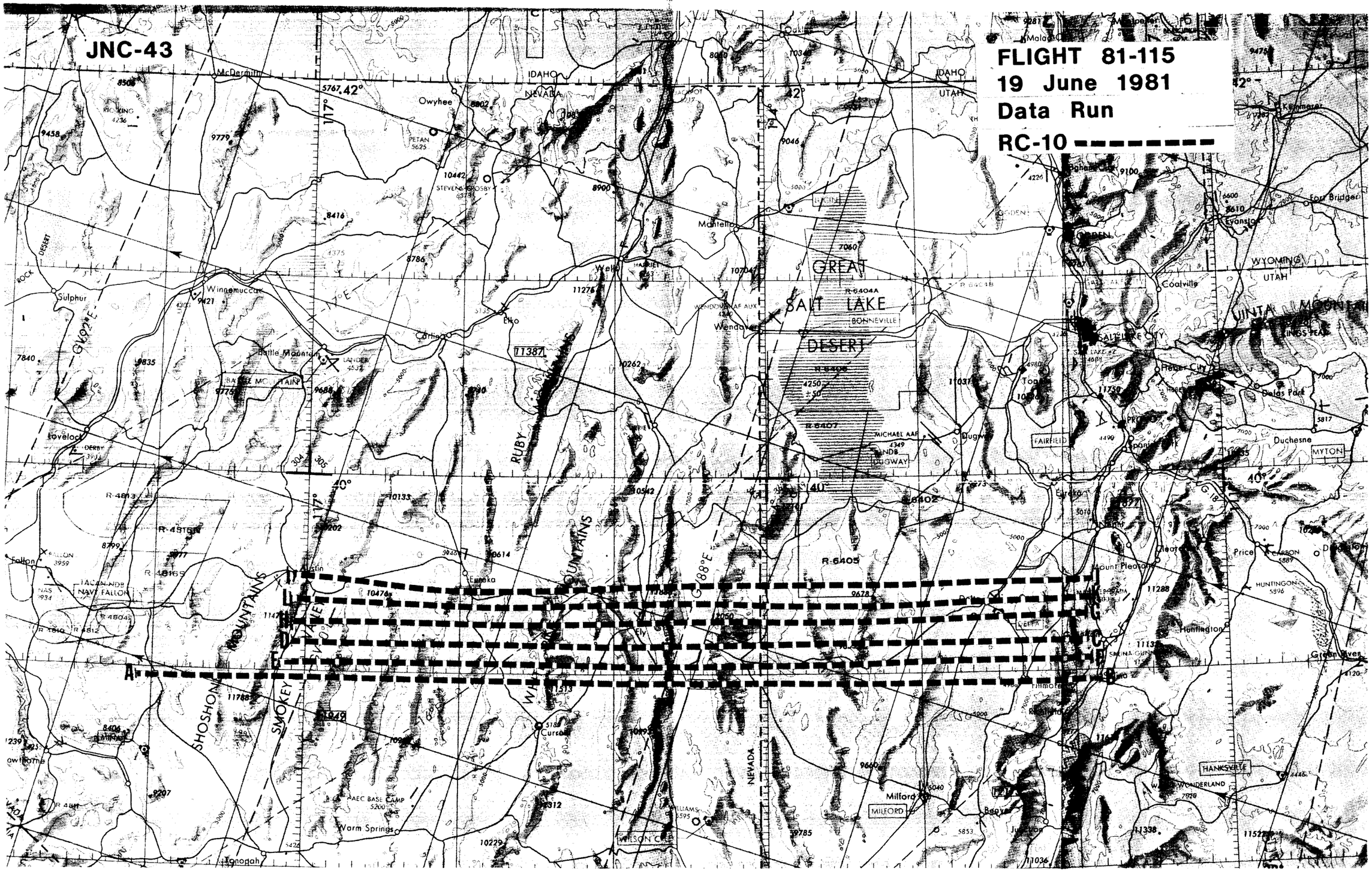
Remarks: ---

FLIGHT SUMMARY

81-115

This flight was flown in support of Flight Request #0911 (Montanari, US Fish and Wildlife Service) under the FY 1981 Airborne Instrumentation Research Program (AIRP). Photographic coverage was obtained over portions of Nevada and Utah.

The entire area was cloud-free. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


JNC-43
FLIGHT 81-115
19 June 1981
Data Run
RC-10
McDermitt
Owyhee
PETAN
5625
STEVENS-CROSBY
Mantello
Wells
HARRIET
Wendover
Wendover AAF AUX
Elko
Orlino
Battle Mountain
LANDER
Winnemucca
Sulphur
Lovelock
DERBY
Fallon
NAS
FALLON
TACANDB
NAVY FALLON
Austin
Eureka
Curzon
Warm Springs
AEC BASE CAMP
5200
Tonopah
WILSON CR
WILLIAMS
5595
Milford
MILFORD
Delta
Fillmore
Richfield
Junction
Panguitch
Bryce
Escalante
Cedar City
Parowan
Kanarraville
Kemmerer
Pahaven
Evanston
Coalville
Four Bridges
SALT LAKE CITY
Provo
Heber City
Orem
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Duchesne
MYTON
Dugway
MICHAEL AAF
4349
NDB
DUGWAY
FAIRFIELD
Eureka
Nephi
Manti
Ephraim
Mount Pleasant
Price
CARBON
5889
HUNTINGTON
5896
Huntington
Green River
HANKSVILLE
WONDERLAND
7929
GREAT
SALT LAKE
DESERT
BONNEVILLE
R-6404A
R-6406
4250
±50
R-6407
R-6405
R-4813
R-4813S
R-4816S
R-4804S
R-4812
R-4810
R-4811
ROCK DESERT
SHOSHONE MOUNTAINS
SMOKEY VALLEY
RUBY MOUNTAINS
WHITE RIVER VALLEY
NEVADA
IDAHO
NEVADA
UTAH
WYOMING
UTAH
UINTA MOUNTAINS
KINGS PEAK
117°
118°
119°
120°
111°
112°
40°
41°
42°
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FLIGHT SUMMARY REPORT

Flight No: 81-116

Date: 25 June 1981

FSR No: 1514

Julian Date: 176

Sensor Package: RC-10

Aircraft No: 5

Purpose of Flight: #0698 Support
Requestor: McKain

Area(s) Covered: Montana

SENSOR DATA

Accession No: 02992

Sensor ID No: 031

Sensor Type: RC-10

Focal Length: 6"
153.05mm

Film Type: High Definition
Aerochrome Infrared,
SO-131

Filtration: CC .20B + 2.2AV

Spectral Band: 510-900nm

f Stop: 4

Shutter Speed: 1/100

No. of Frames: 42

% Overlap: 60

Quality: Excellent

Remarks: ---

FLIGHT SUMMARY

81-116

This flight was flown in support of Flight Request #0698 (McKain, NASA/JSC) in support of the AgRISTARS program. RC-10 photographic coverage was obtained over selected sites in Montana.

The entire area was cloud-free. No annotation is imaged on the frames. Times were taken from the pilots log. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

FLIGHT SUMMARY REPORT

Flight No: 81-117

Date: 26 June 1981

FSR No: 1515

Julian Date: 177

Sensor Package: Itek Iris II Panoramic Camera

Aircraft No: 6

Purpose of Flight: Functional Check Flight
ER-2/Iris II

Area(s) Covered: California

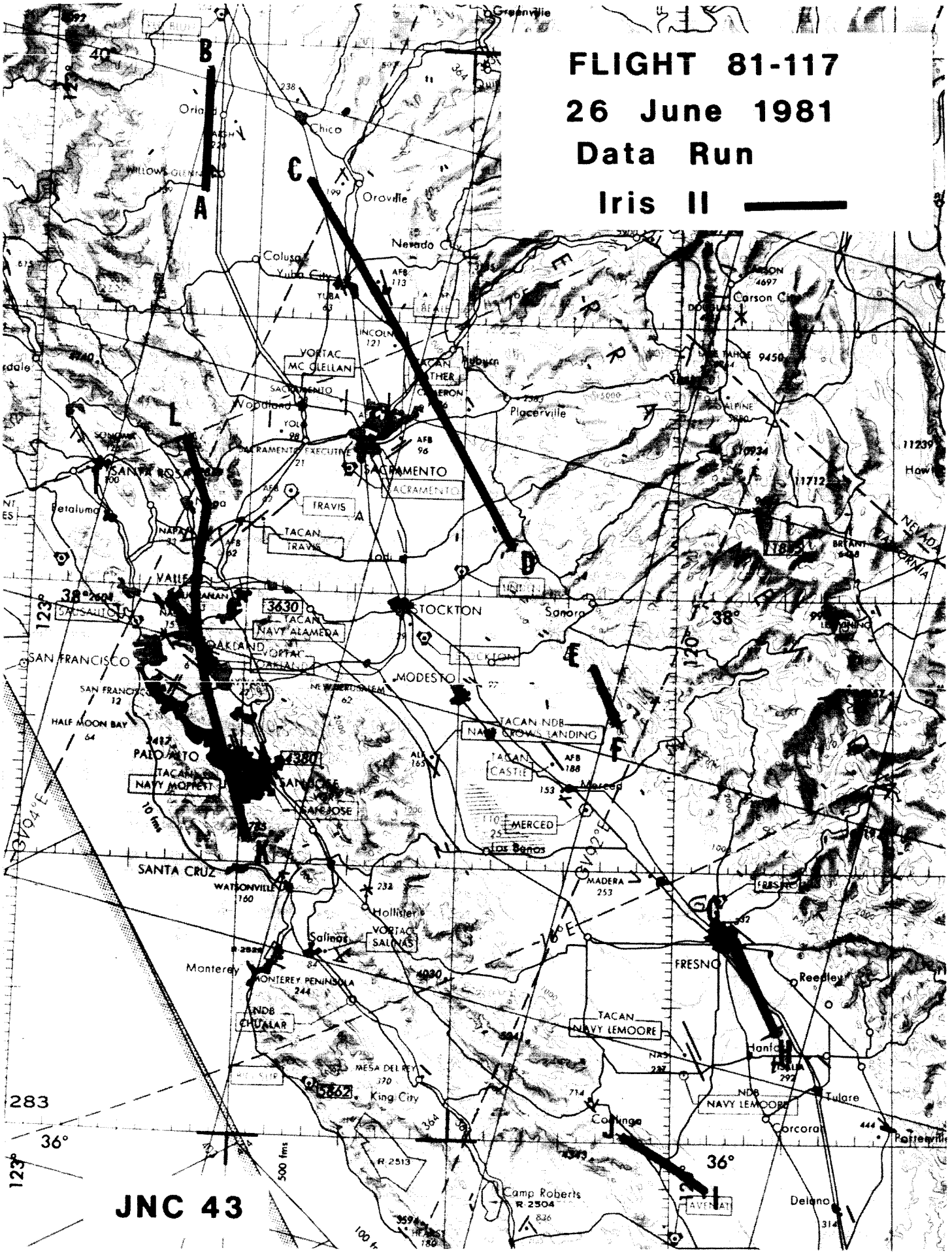
SENSOR DATA

Accession No:	02993
Sensor ID No:	070
Sensor Type:	Itek Iris II
Focal Length:	24" 609.6mm
Film Type:	Kodak High Definition Aerial Film, 3414
Filtration:	Wratten 21
Spectral Band:	540-700nm
f Stop:	3.5
Shutter Speed:	1/250
No. of Frames:	332
% Overlap:	60
Quality:	Excellent
Remarks:	90° FOV

FLIGHT SUMMARY

81-117

This flight was a functional check flight of the ER-2 and the Iris II (90° FOV) System. No camera or processing malfunctions were noted and the quality of the data is rated excellent.


FLIGHT 81-117
26 June 1981
Data Run
Iris II
A
B
C
D
E
F
G
H
I
J
K
L
SACRAMENTO
STOCKTON
MODESTO
FRESNO
SAN FRANCISCO
SAN JOSE
SANTA CRUZ
Monterey
Salinas
Hollister
Placerville
Chico
Oroville
Colusa
Marysville
Petaluma
Napa
Vallejo
Oakland
Half Moon Bay
Palo Alto
Watsonville
Los Banos
Merced
Madera
Reedley
Hanford
Tulare
Corcoran
Delano
Coalinga
King City
Camp Roberts
Lemoore
VORTAC MC CLELLAN
TACAN TRAVIS
TACAN NAVY ALAMEDA
VORTAC OAKLAND
TACAN NAVY MOFFETT
VORTAC SALINAS
TACAN CASTLE
TACAN NAVY LEMOORE
NDB NAVY LEMOORE
NDB CHUALAR
JNC 43

FLIGHT SUMMARY REPORT

Flight No: 81-118

Date: 29 June 1981

FSR No: 1516

Julian Date: 180

Sensor Package: RC-10
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0911 Support
Requestor: Montanari
#0047 Support
Requestor: Ferry

Area(s) Covered: Nevada/Utah

SENSOR DATA

Accession No:	02994	---
Sensor ID No:	026	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.97mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/200	---
No. of Frames:	465	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

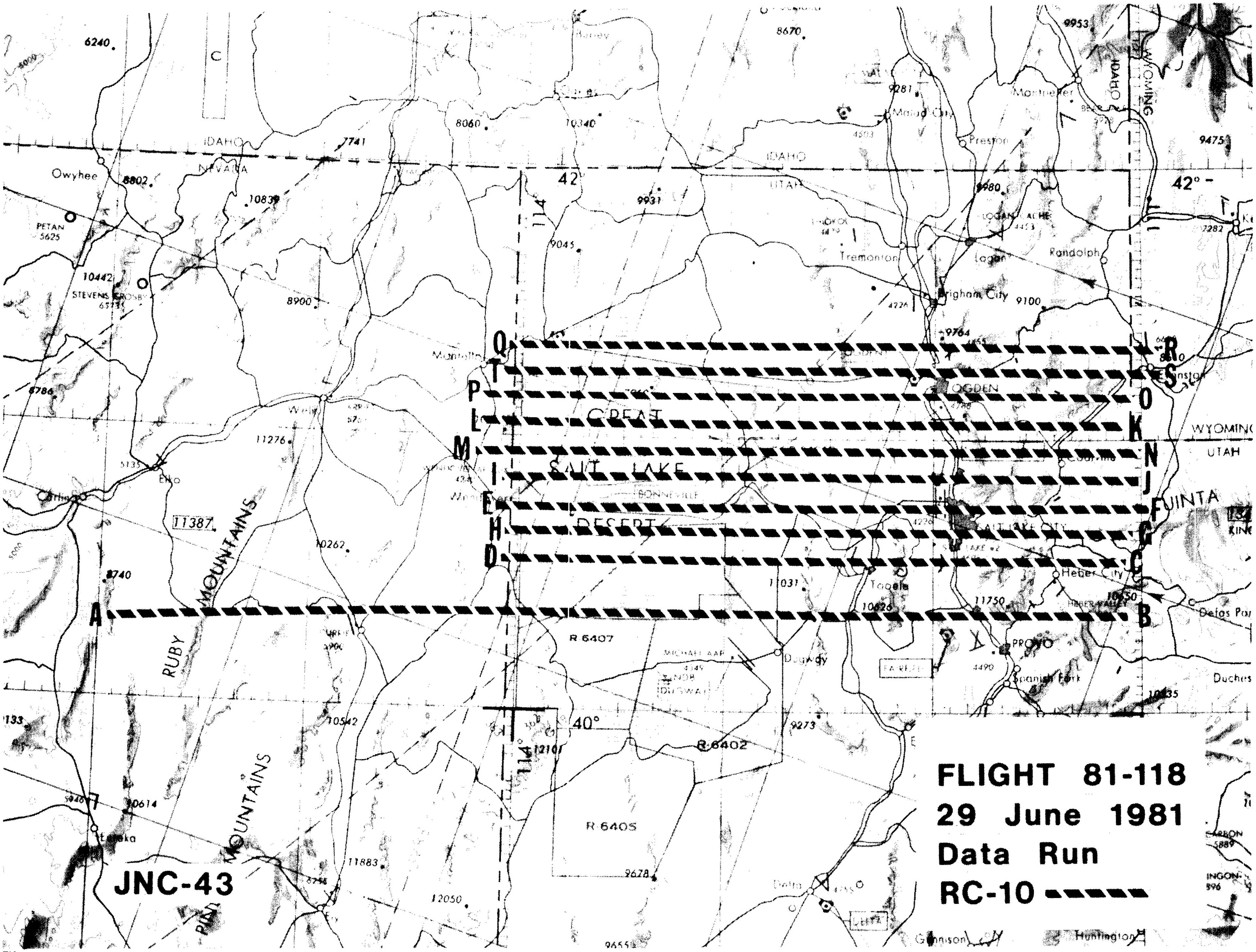
FLIGHT SUMMARY

81-118

This flight was flown in support of Flight Request #0911 (Montanari, USFWS) and #0047 (Ferry, NASA/ARC) under the the FY 1981 Airborne Instrumentation Research Program (AIRP). RC-10 photographic coverage was obtained over northern Nevada and Utah in support of the National Wetlands Inventory. Additionally, Aerosol Particulate Sampler (APS) data was collected throughout the flight at altitude, but is not depicted on the track map.

Minor cumulus cloudcover was encountered over several segments of the flight. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.



FLIGHT 81-118
29 June 1981
Data Run
RC-10
JNC-43
GREAT SALT LAKE DESERT
RUBY MOUNTAINS
IDAHO
NEVADA
UTAH
WYOMING
Owyhee
Elko
Wells
Ogden
Brigham City
Logan
Tremonton
Preston
Malad City
Montpelier
Randolph
Tooele
Provo
Spanish Fork
Heber City
Dugway
Eureka
Huntington
42°
40°
114°
R 6407
R 6405
R 6402
A
B
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FLIGHT SUMMARY REPORT

Flight No: 81-119

Date: 30 June 1981

FSR No: 1517

Julian Date: 181

Sensor Package: RC-10
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0911 Support
Requestor: Montanari
#0047 Support
Requestor: Ferry

Area(s) Covered: Northern Utah

SENSOR DATA

Accession No:	02995	---
Sensor ID No:	026	024
Sensor Type:	RC-10	APS
Focal Length:	12" 304.97mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/200	---
No. of Frames:	272	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-imaging sensor

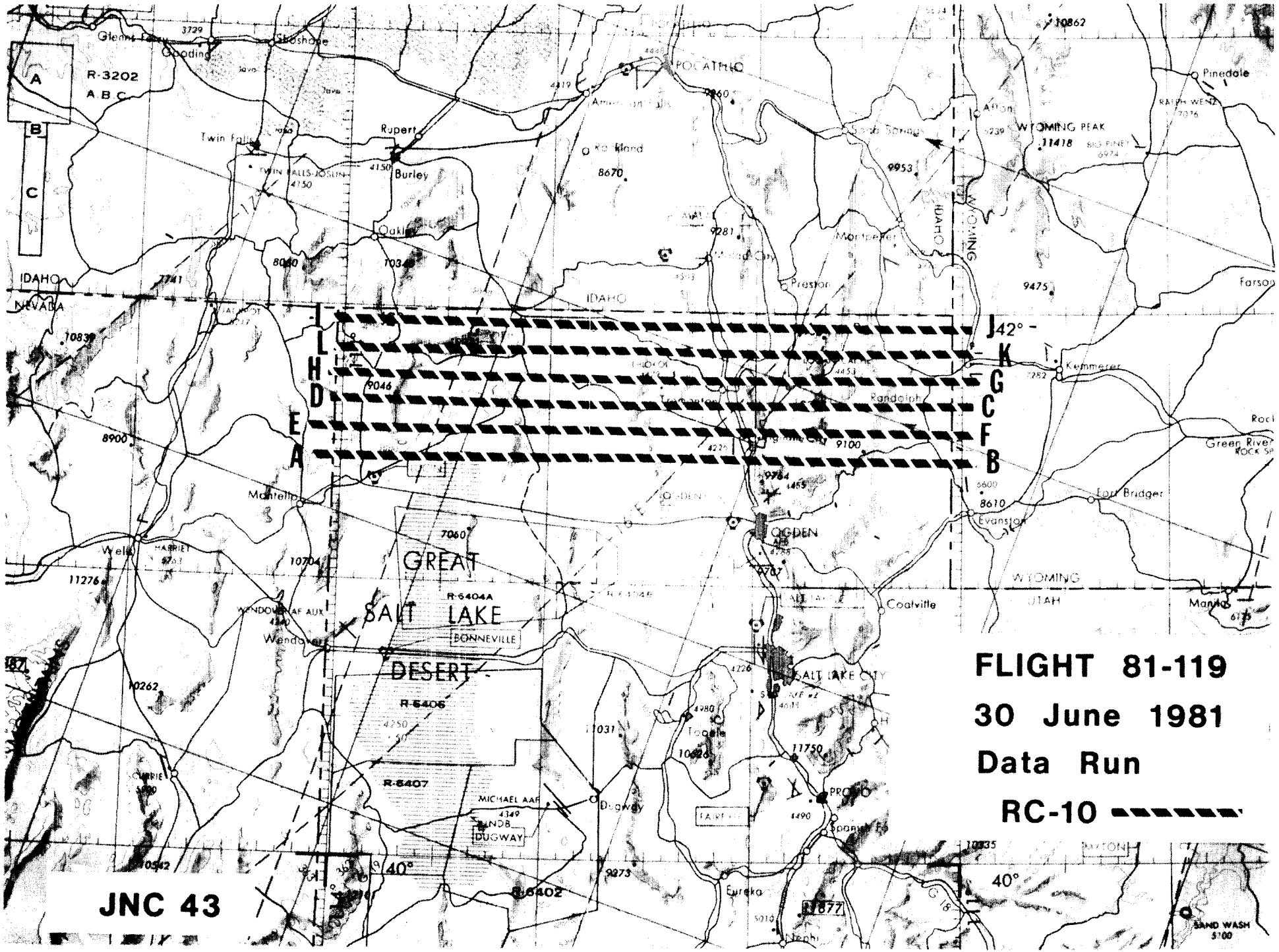
FLIGHT SUMMARY

81-119

This flight was flown in support of Flight Requests #0911 (Montanari, USFWS) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP). RC-10 photographic coverage was obtained over northern Utah in support of the National Wetlands Inventory. Additionally, Aerosol Particulate Sampler (APS) data was collected throughout the flight at altitude, but is not depicted on the track map.

Minor to heavy cumulus and cirro-cumulus cloudcover was encountered throughout the flight. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


A
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C
R-3202
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Glenns Ferry
Gooding
Shoshone
Twin Falls
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Burley
Oakley
IDAHO
NEVADA
POCATELLO
Pinedale
WYOMING PEAK
11418
Preston
IDAHO
WYOMING
Farson
Kemmerer
Randolph
Green River
Fort Bridger
Evanston
WYOMING
UTAH
Coalville
Manila
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42°
40°
Montello
Wells
HARRIET
GREAT
SALT LAKE
DESERT
R-6404A
BONNEVILLE
R-6406
R-6407
R-6402
MICHAEL AAF
NDB
DUGWAY
Dugway
OGDEN
SALT LAKE CITY
Tooele
PROVO
Eureka
Nephi
SAND WASH
5100
JNC 43
FLIGHT 81-119
30 June 1981
Data Run
RC-10

FLIGHT SUMMARY REPORT

Flight No: 81-124

Date: 24 July 1981

FSR No: 1518

Julian Date: 205

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: West-central Alaska

SENSOR DATA

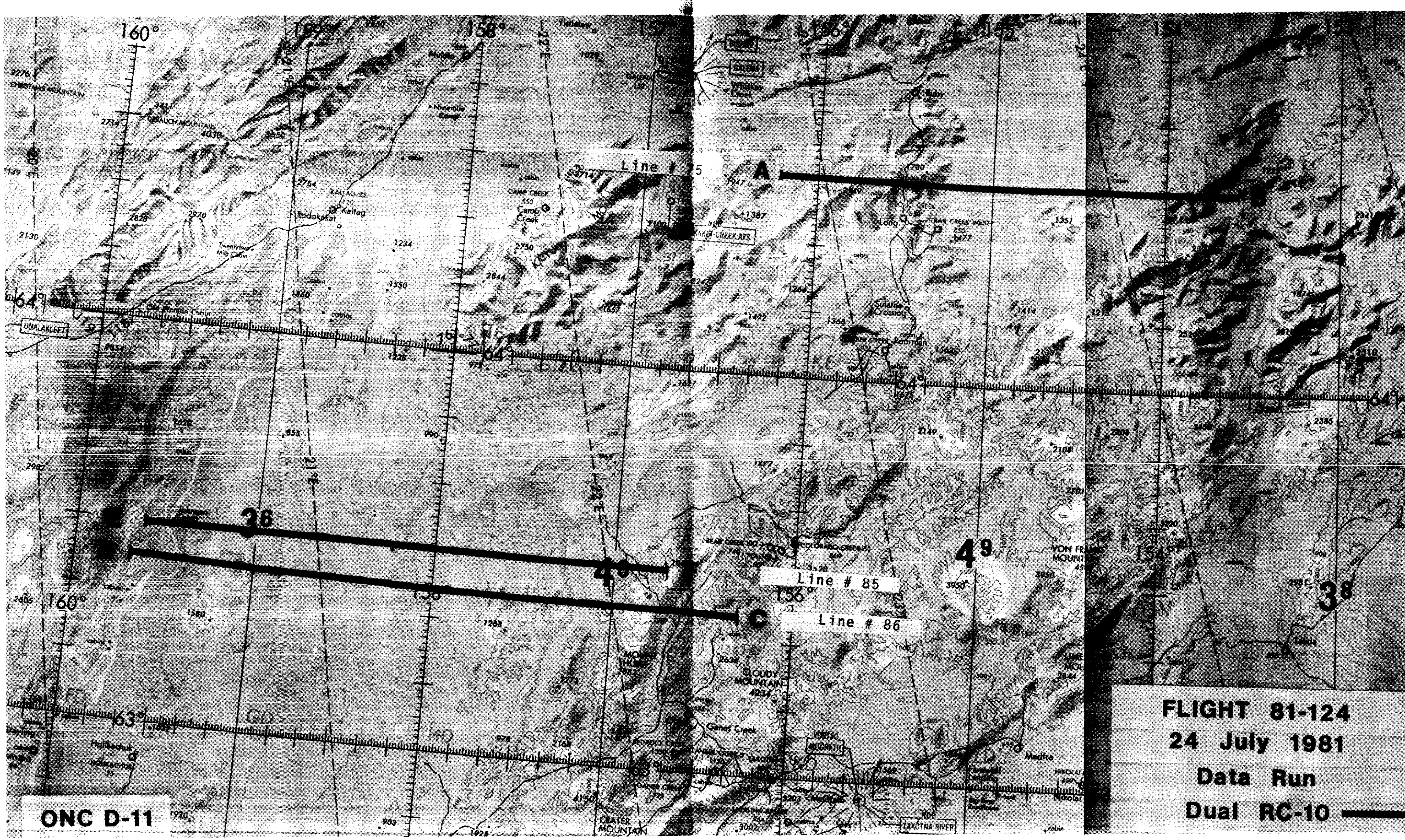
Accession No:	02996	02997
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	68	37
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-124

This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 coverage was obtained over west-central Alaska in support of the Alaska high altitude photography program.

All lines were essentially cloud-free. The annotation on the black and white data is illegible due to an LED failure. The color infrared data mistracked during processing, resulting in degraded data on two frames (see flight line data). No other camera or processing malfunctions were noted and the quality of the data is rated as excellent.



ONC D-11
FLIGHT 81-124
24 July 1981
Data Run
Dual RC-10
Line # 75
Line # 85
Line # 86
A
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160°
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UNALAKLEET
Kaltag
Nulato
CAMP CREEK
Long
Sulatna Crossing
Poorman
COLORADO CREEK
CLOUDY MOUNTAIN
MOUNT HURST
Ganes Creek
McGRATH
TAKOTNA RIVER
Medfra
Nikolai
Holikachuk
CRATER MOUNTAIN
KAKET CREEK AFS
Whiskey Creek
Ruby
CHRISTMAS MOUNTAIN
DEBAUCH MOUNTAIN
Ninemile Camp
Rodokakat
Twentytwo Mile Cabin
Old Woman Cabin
VON FRANK MOUNTAIN

FLIGHT SUMMARY REPORT

Flight No: 81-125 **Date:** 25 July 1981

FSR No: 1519 **Julian Date:** 206

Sensor Package: Dual RC-10 **Aircraft No:** 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: Alaska

SENSOR DATA

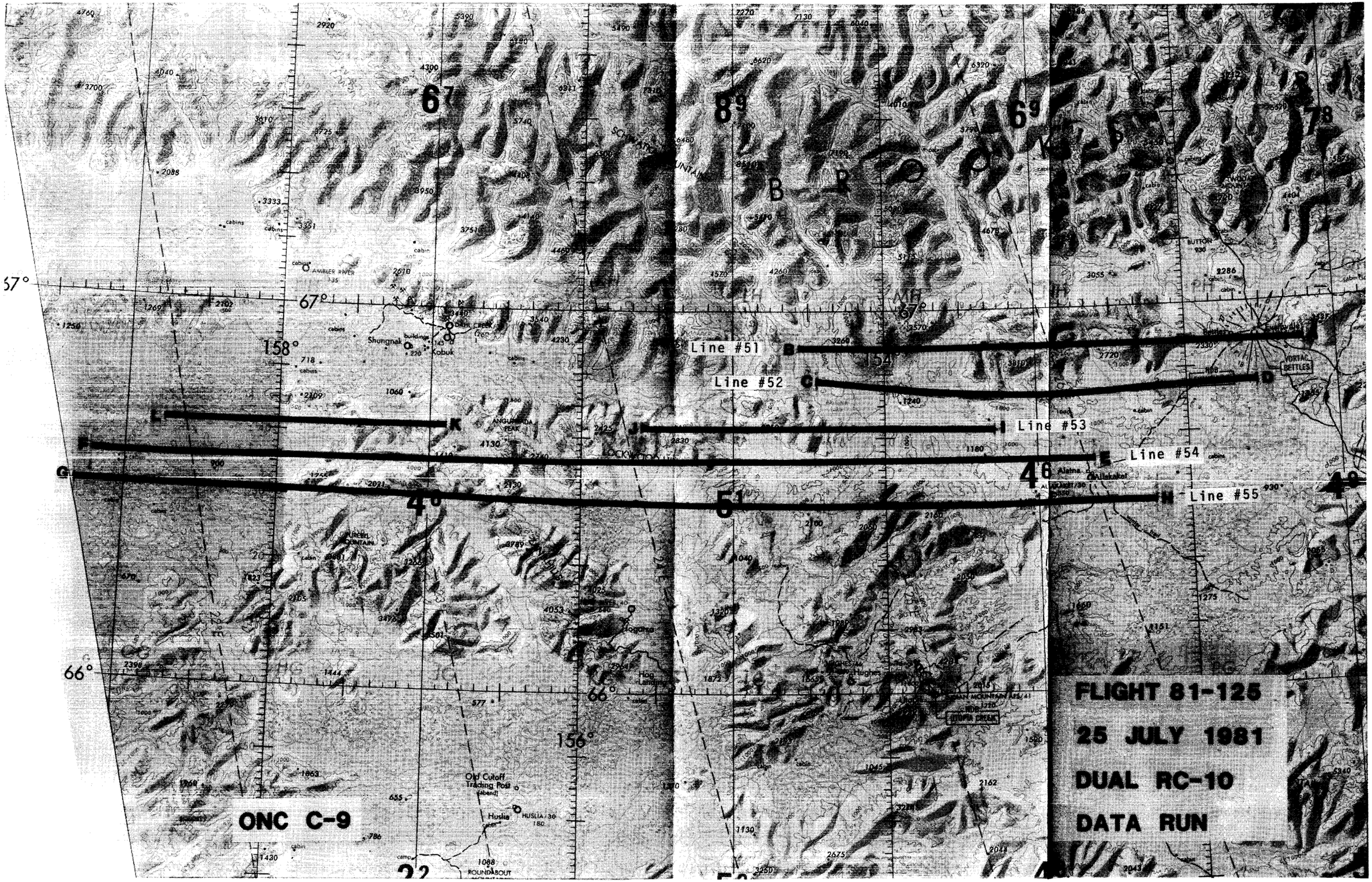
Accession No:	02998	02999
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plux-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	173	94
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-125

This flight was flown in support of Flight Request #0685 (Anderson, BLM/Alaska State Officer) under the FY 1981 Airborne Instrumentation Research Program (AIRP). Dual RC-10 coverage was obtained over a portion of western Alaska, east of Kotzebue Sound (see Track Map).

Minor cumulus cloudcover was encountered on all flight lines. No processing or camera malfunctions other than LED smear on one frame were noted and the quality of the data is rated as excellent.


Line #51
Line #52
Line #53
Line #54
Line #55
FLIGHT 81-125
25 JULY 1981
DUAL RC-10
DATA RUN
ONC C-9

FLIGHT SUMMARY REPORT

Flight No: 81-127

Date: 2 August 1981

FSR No: 1523

Julian Date: 214

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: Alaska

SENSOR DATA

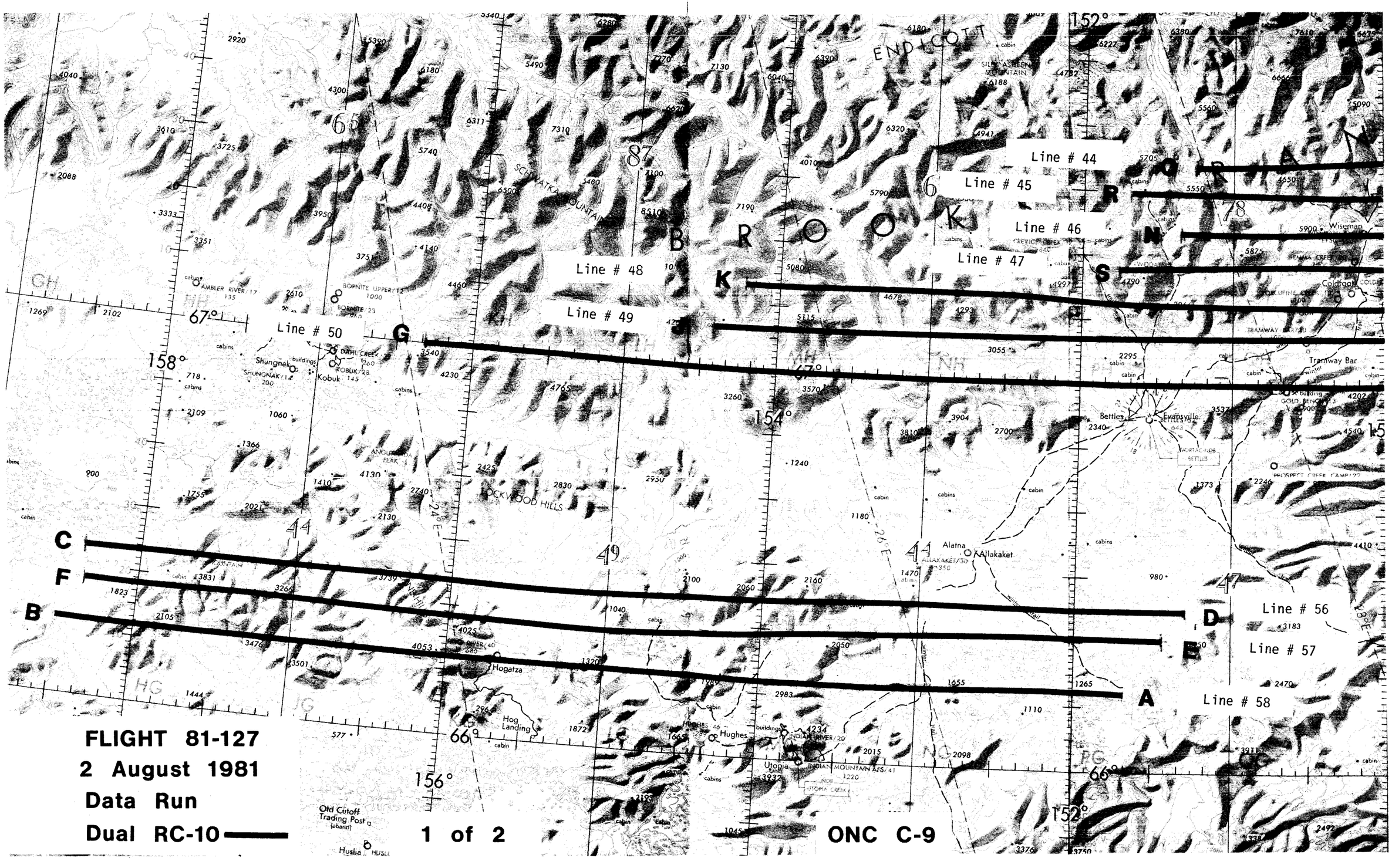
Accession No:	03004	03005
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	461	219
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

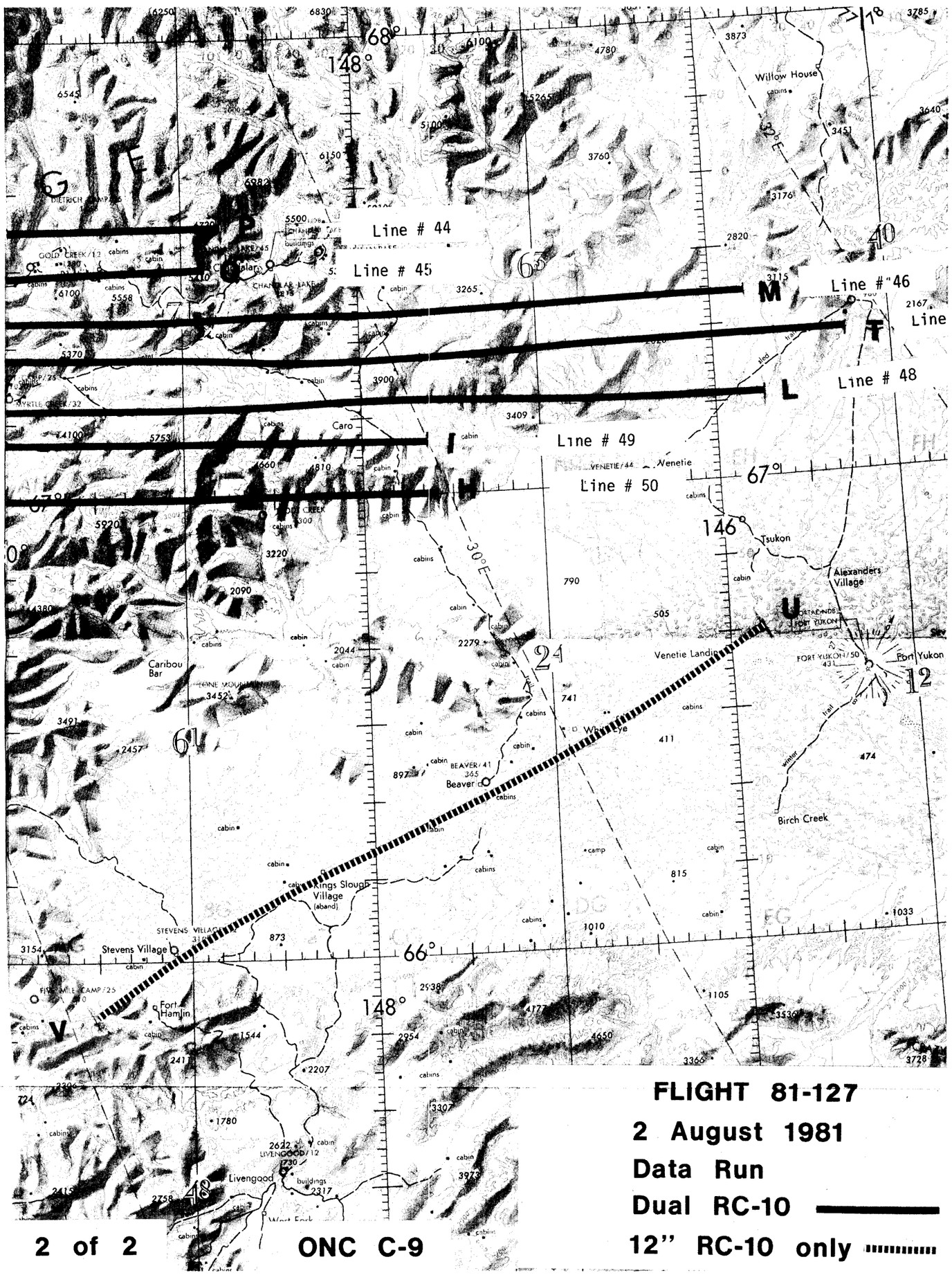
FLIGHT SUMMARY

81-127

This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photographic coverage was obtained over a portion of the northern Yukon River basin (see Track Map).

The area flown was substantially clear, with only minor cumulus cloud cover encountered. The LED annotation on the black and white camera is illegible, and times were derived from the CIR data. No other processing or camera problems were noted, and the quality of the data is rated excellent.


Line # 44
Line # 45
Line # 46
Line # 47
Line # 48
Line # 49
Line # 50
Line # 56
Line # 57
Line # 58
G
C
F
B
D
A
FLIGHT 81-127
2 August 1981
Data Run
Dual RC-10
1 of 2
ONC C-9



FLIGHT 81-127

2 August 1981

Data Run

Dual RC-10 ——

12" RC-10 only ·····

2 of 2 **ONC C-9**

FLIGHT SUMMARY REPORT

Flight No: 81-130

Date: 4 August 1981

FSR No: 1524

Julian Date: 216

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: Alaska

SENSOR DATA

Accession No:	03006	03007
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	415	221
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-130

This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photography was collected over west-central Alaska (see Track Map).

The area photographed was cloud-free with the exception of minor thin cirrus at the eastern end of some flight lines. The LED annotation on the black and white photography is illegible, and times are derived from the color infrared data. Two short sections of the CIR data are slightly degraded by a color balance shift believed to be caused by an emulsion defect. No other camera or processing malfunctions were noted, and the quality of the data is rated excellent.

WAC CC-8

FLIGHT 81-130
4 August 1981
Data Run
Dual RC-10

Line # 62
Line # 63
Line # 64
Line # 66
Line # 67
Line # 68
Line # 69
Line # 70
Line # 71
Line # 72
Line # 74

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V
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C
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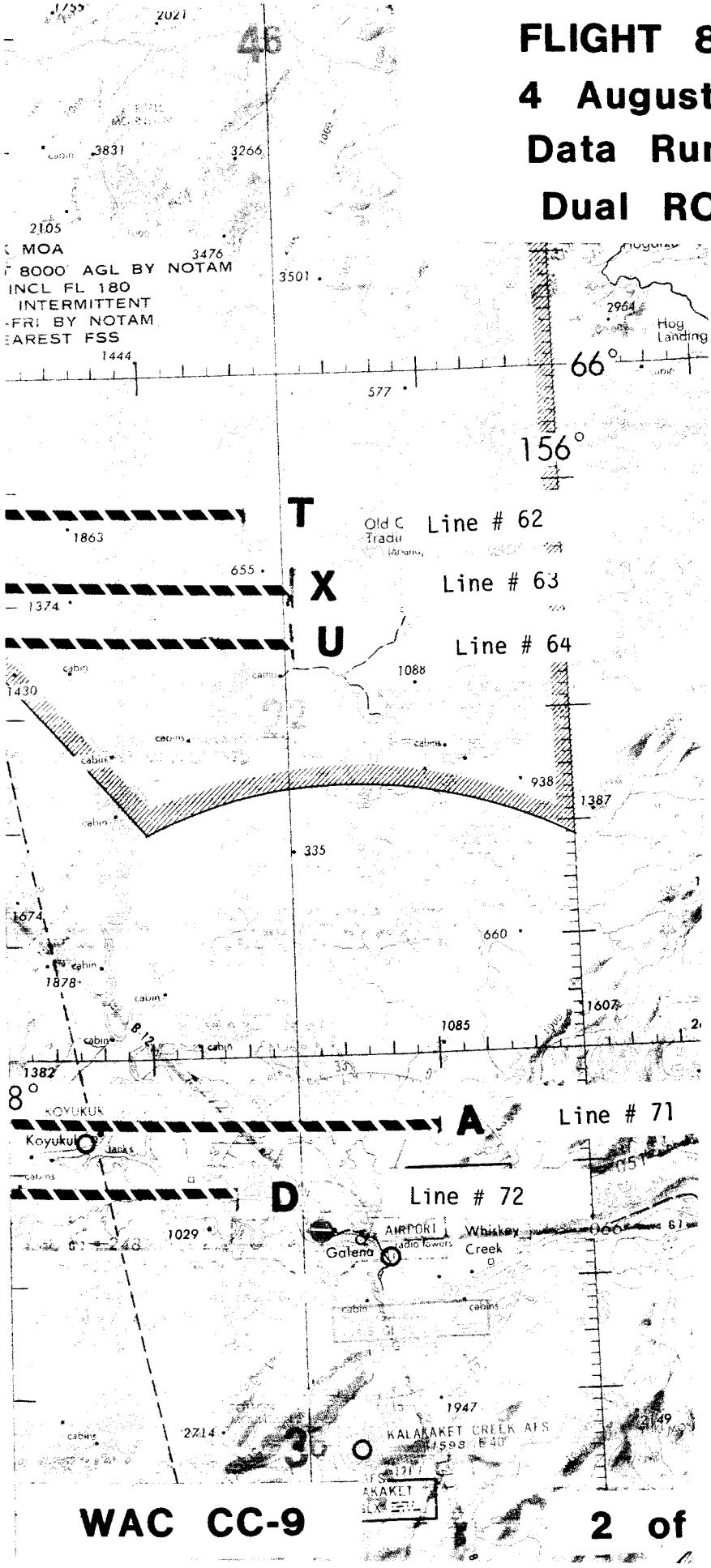
L
Q

166°
164°
162°
160°
66°
65°

1 of 2

FLIGHT 81-130
4 August 1981
Data Run
Dual RC-10



WAC CC-9

2 of 2

FLIGHT SUMMARY REPORT

Flight No: 81-131

Date: 5 August 1981

FSR No: 1525

Julian Date: 217

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: North-central Alaska

SENSOR DATA

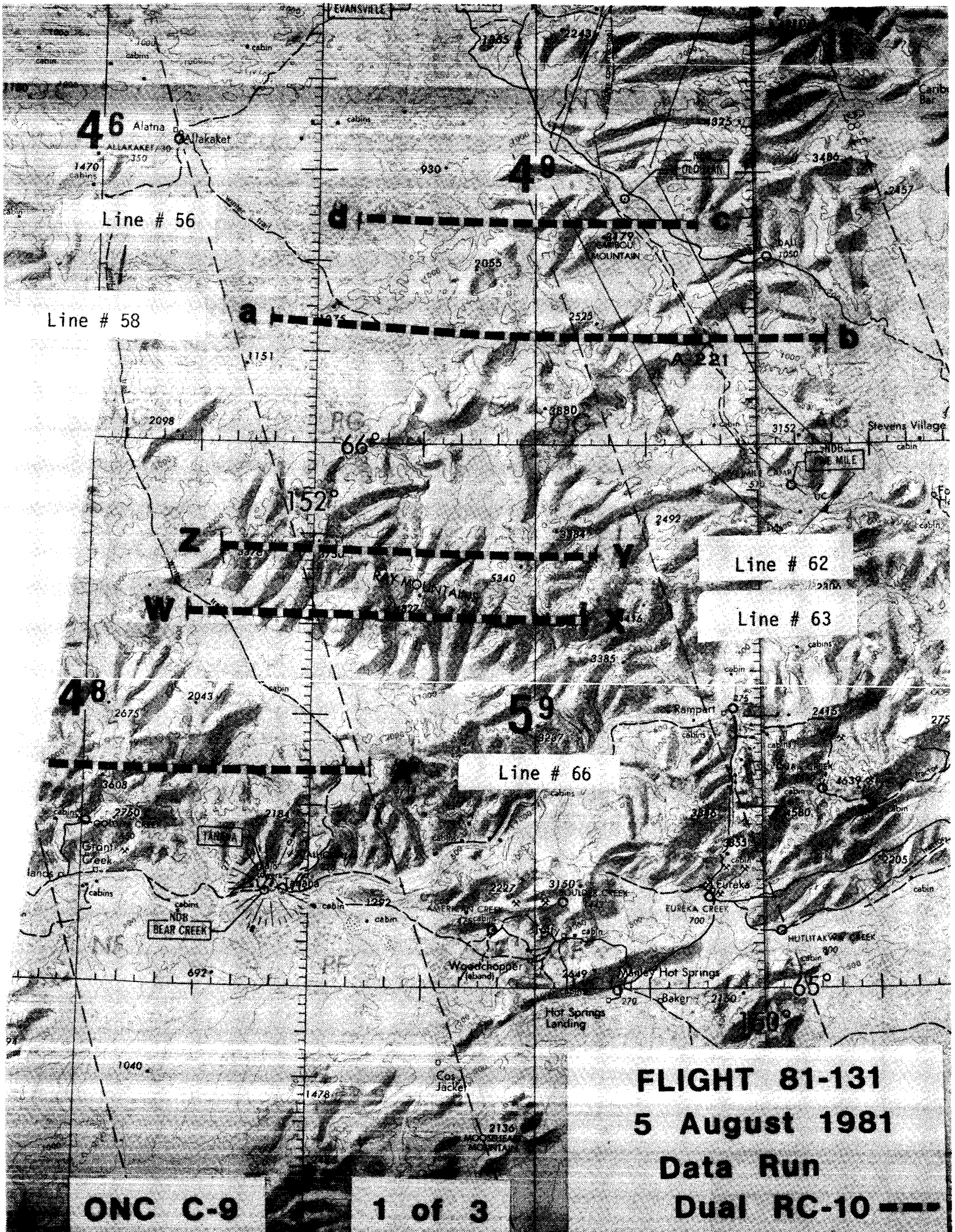
Accession No:	03008	03009
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	457	254
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

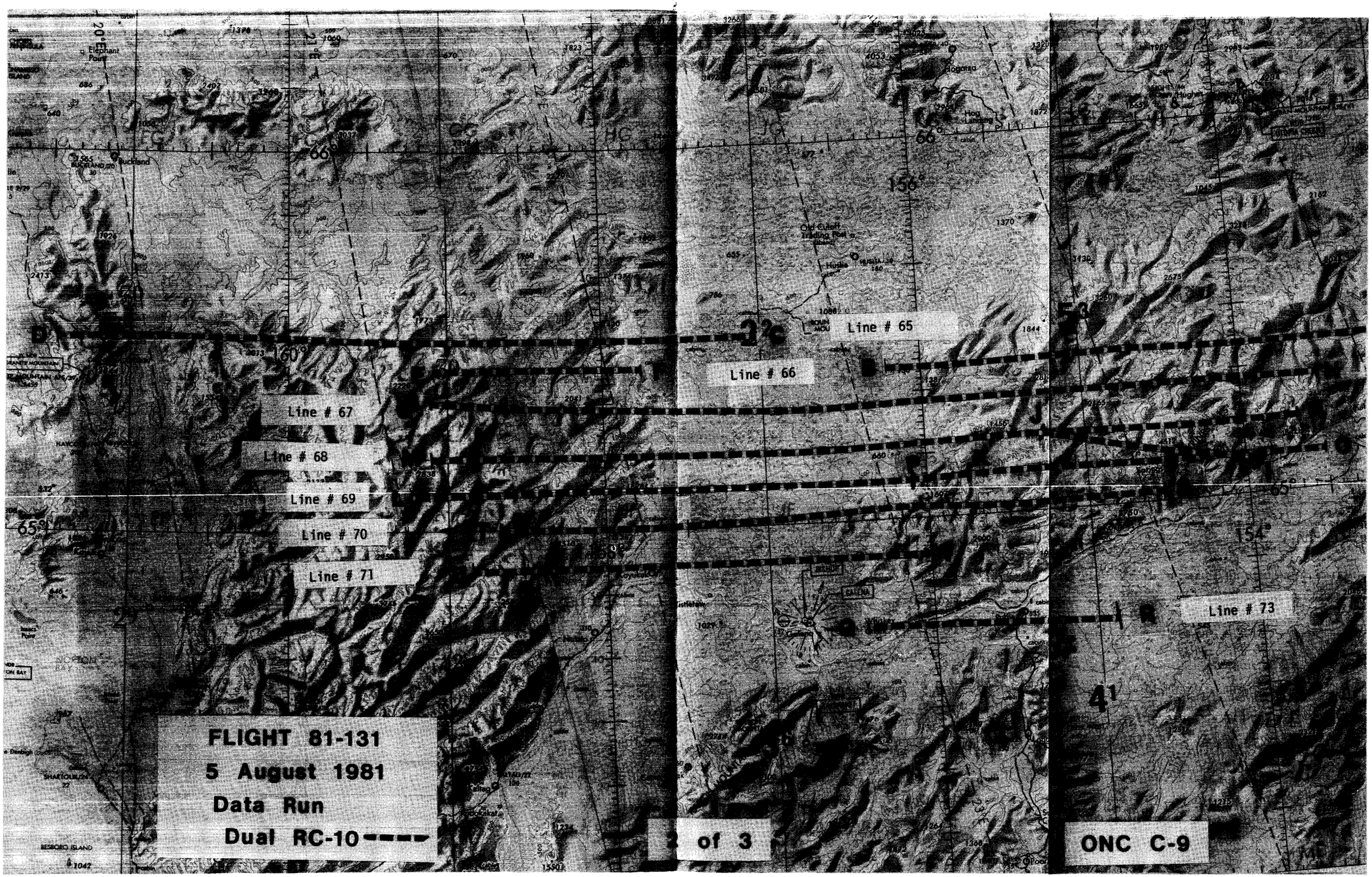
81-131

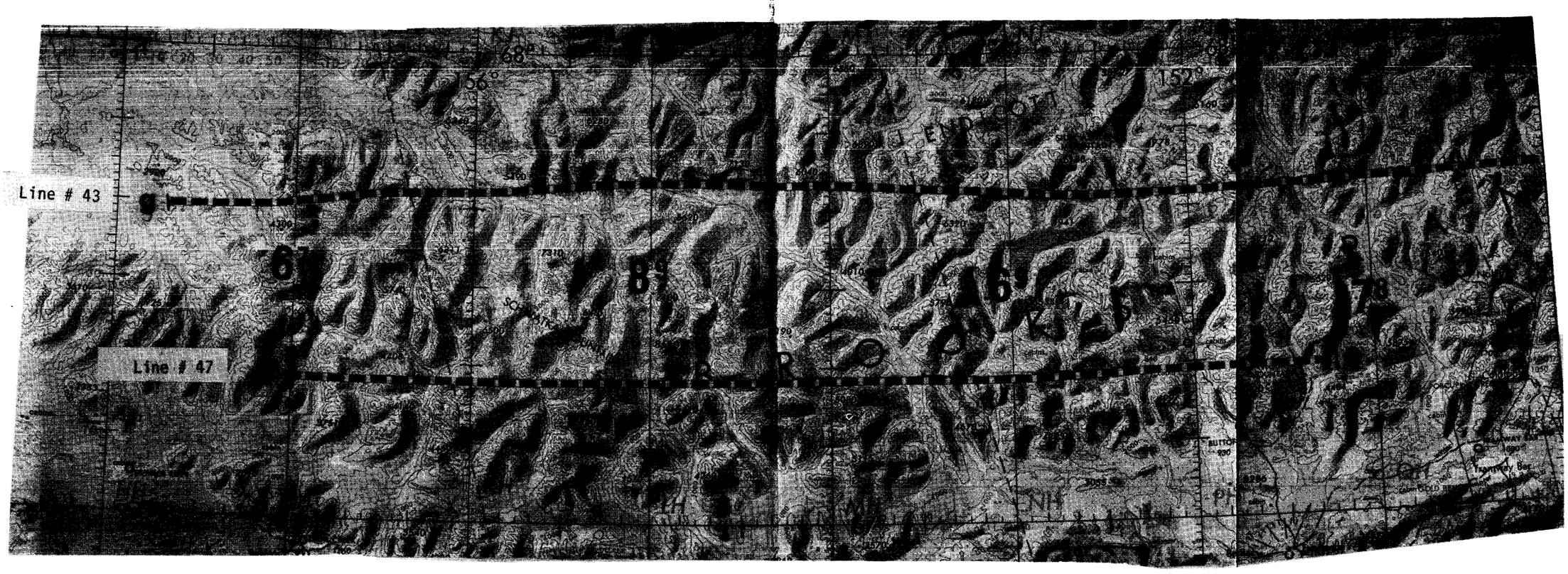
This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photography was acquired over portions of northern Alaska in support of the Alaska high altitude photographic project.

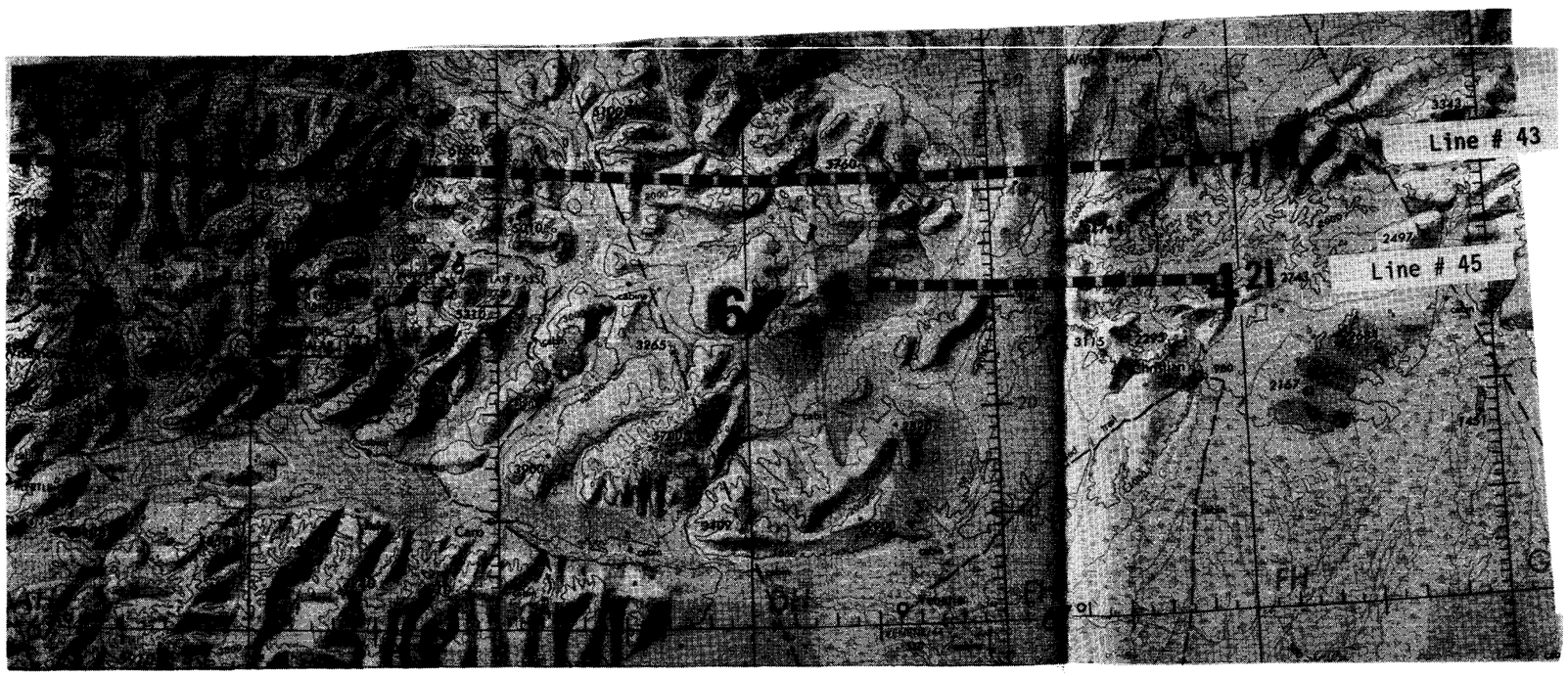
Although much of the area was cloud-free, minor to moderate cumulus, cirro-cumulus, and strato-cumulus was encountered. No processing or camera malfunctions were noted and the quality of the data is rated excellent.



Line # 56
Line # 58
Line # 62
Line # 63
Line # 66
d
c
a
b
z
Y
W
X
46
49
48
59
Alatna
Allakaket
EVANSVILLE
CARIBOU MOUNTAIN
Stevens Village
FIVE MILE
RAY MOUNTAINS
Rampart
Eureka
EUREKA CREEK
TANANA
BEAR CREEK
Grant Creek
AMERICAN CREEK
BOULDER CREEK
HUTLITAKWA CREEK
Woodchopper
Manley Hot Springs
Hot Springs Landing
Baker
MOOSEHEAD MOUNTAIN
66°
65°
152°
150°
FLIGHT 81-131
5 August 1981
Data Run
Dual RC-10
ONC C-9
1 of 3


Line # 67
Line # 68
Line # 69
Line # 70
Line # 71
Line # 65
Line # 66
Line # 73
FLIGHT 81-131
5 August 1981
Data Run
Dual RC-10
2 of 3
ONC C-9





FLIGHT 81-131
5 August 1981
Data Run
Dual RC-10

ONC C-9

FLIGHT SUMMARY REPORT

Flight No: 81-132 **Date:** 18 August 1981

FSR No: 1528 **Julian Date:** 230

Sensor Package: Dual RC-10 **Aircraft No:** 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: East-Central Alaska

SENSOR DATA

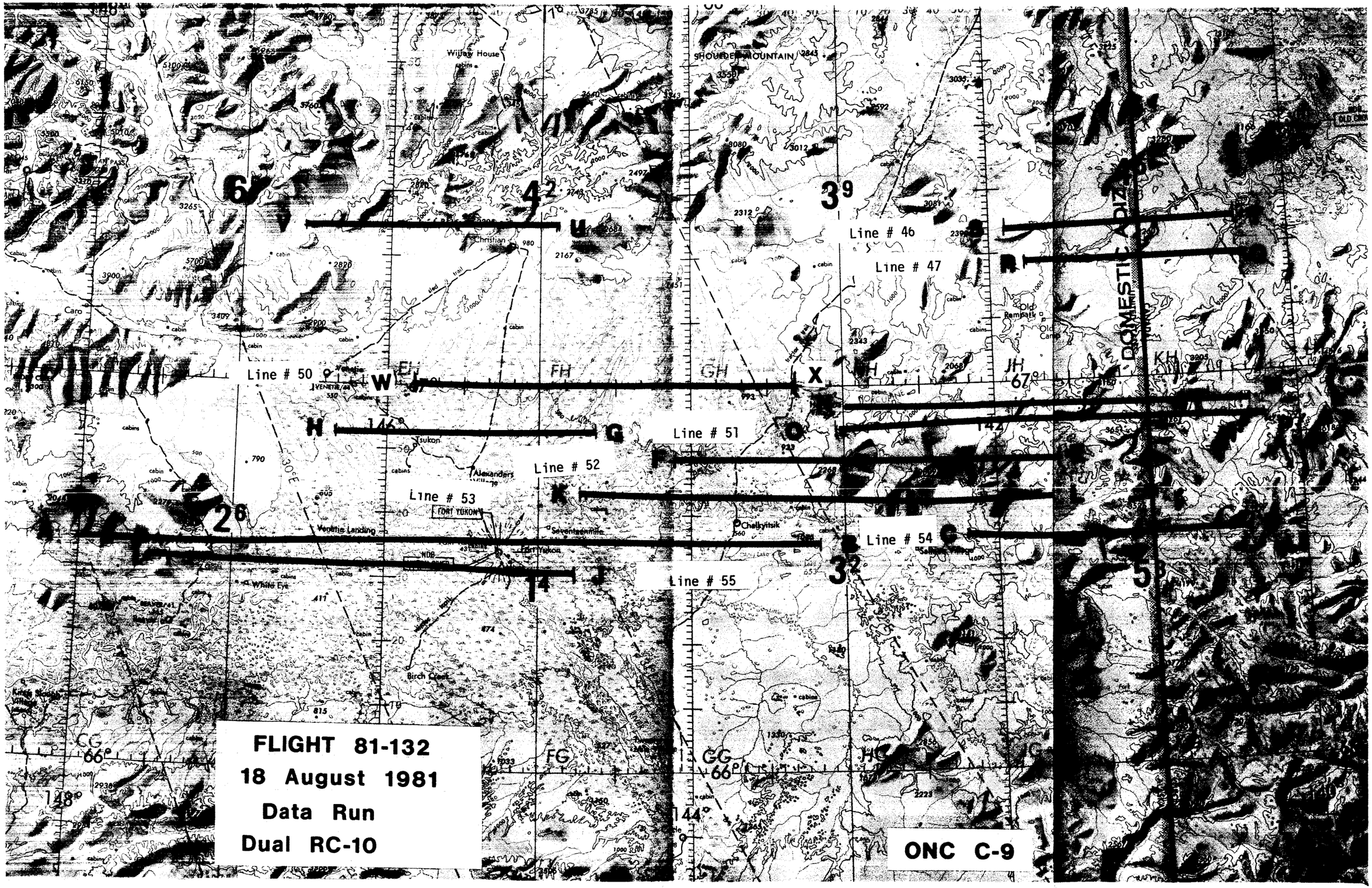
Accession No:	03010	03011
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	203	113
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-132

This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photography was collected over the northeastern Yukon River basin (see Track Map).

The area was predominantly clear with only minor cumulus and cirrus cloud cover encountered. One frame experienced an LED smear, caused by film transport during LED exposure. No other camera or processing malfunctions were noted, and the quality of the data is rated excellent.


Line # 46
Line # 47
Line # 50
Line # 51
Line # 52
Line # 53
Line # 54
Line # 55
Whitestone Mountain
Christian
Caro
Old Ramparts
Old Crow
Alexanders
Selwyn
Chelkyitsik
Fort Yukon
Venetie Landing
White Eye
Birch Creek
Kings Station Village
DOMESTIC AIRPORT
FLIGHT 81-132
18 August 1981
Data Run
Dual RC-10
ONC C-9

FLIGHT SUMMARY REPORT

Flight No: 81-133

Date: 23 August 1981

FSR No: 1529

Julian Date: 235

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson
#0047 Support
Requestor: Ferry

Area(s) Covered: Alaska

SENSOR DATA

Accession No:	03012	03014	---
Sensor ID No:	026	033	024
Sensor Type:	RC-10	RC-10	APS
Focal Length:	12" 304.97mm	6" 153.17mm	---
Film Type:	Aerochrome Infrared, SO-193	Plus-X 2402	---
Filtration:	Wratten 12	Wratten 12 + 2.2AV	---
Spectral Band:	510-900nm	510-700nm	---
f Stop:	8	8	---
Shutter Speed:	1/250	1/400	---
No. of Frames:	380	207	---
% Overlap:	60	60	---
Quality:	Excellent	Excellent	---
Remarks:	---	---	Non-Imaging Sensor

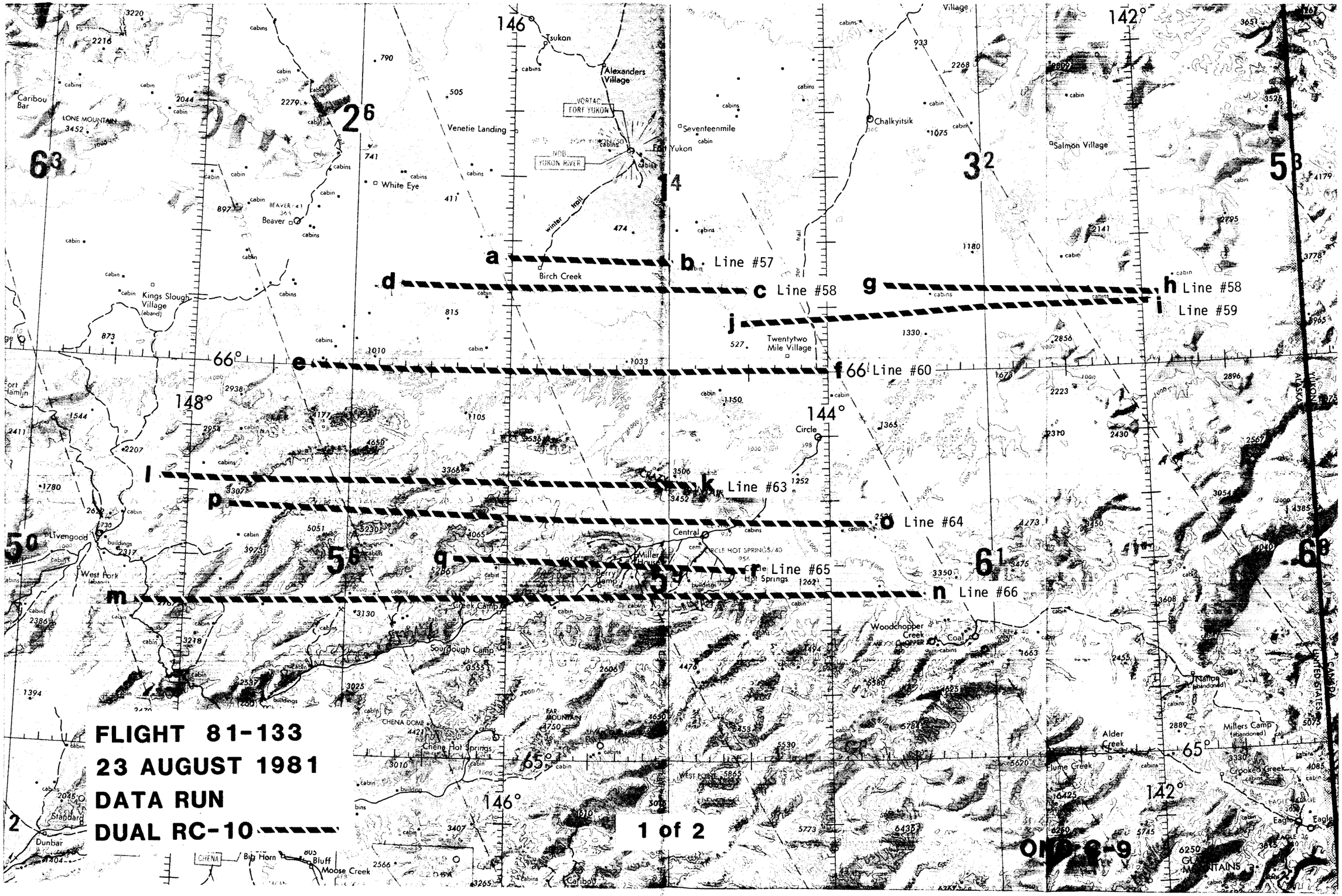
FLIGHT SUMMARY

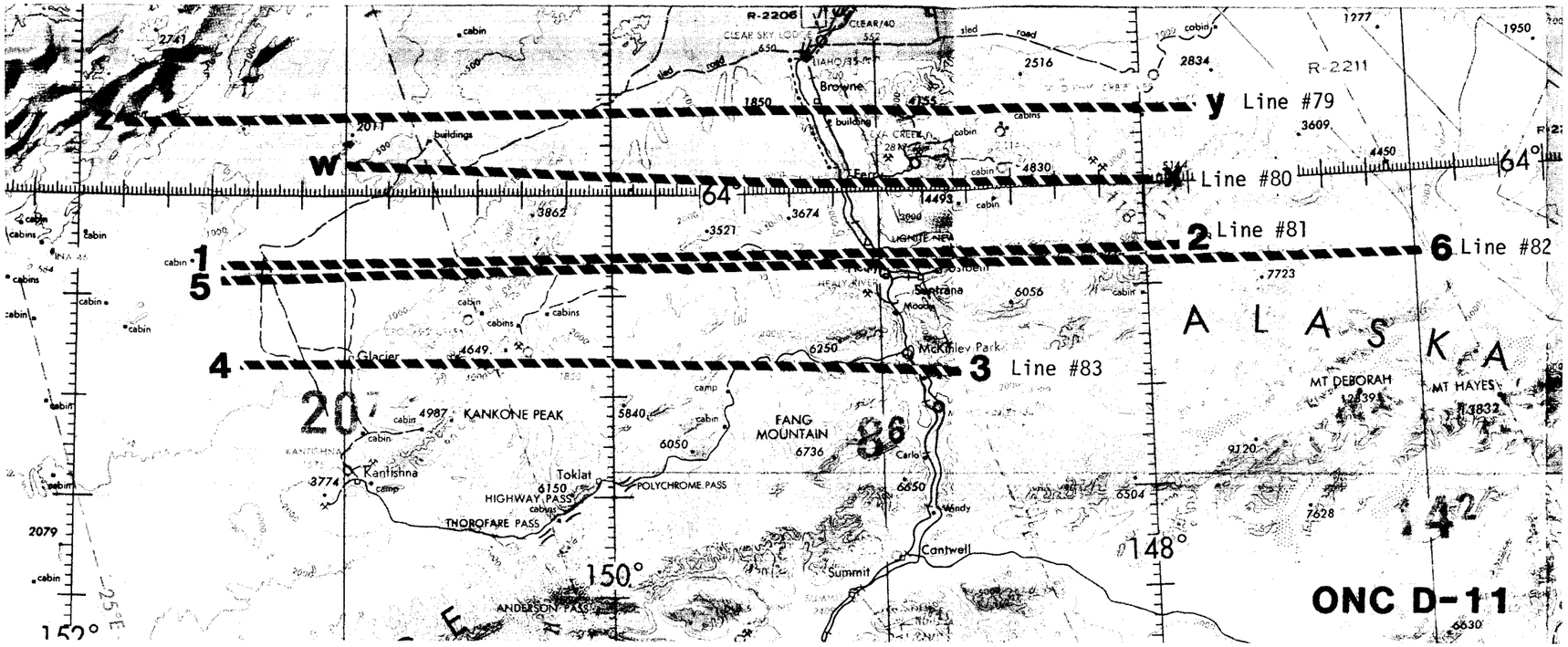
81-133

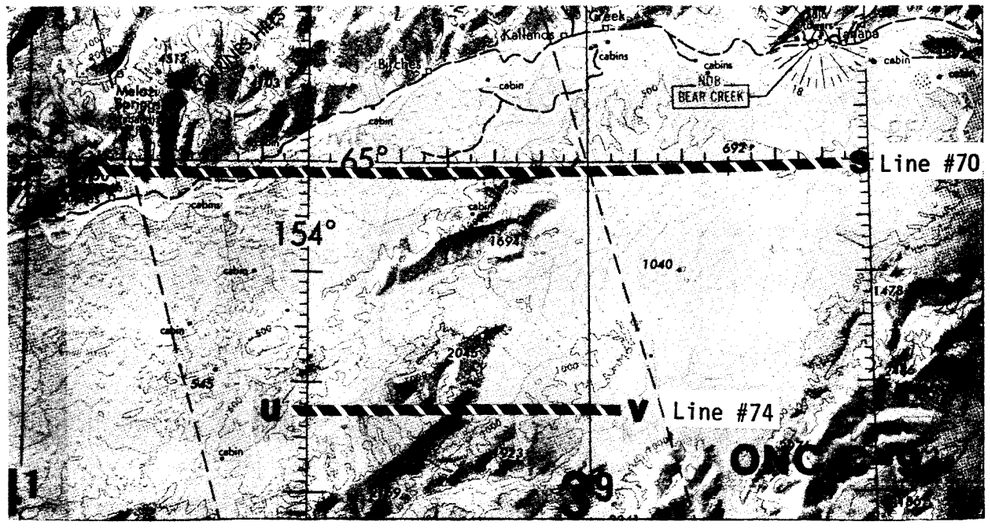
This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photographic coverage was obtained over east central Alaska. Additionally, Aerosol Particulate Sampler (APS) data was collected, but is not depicted on the track map.

Minor cumulus cloud cover was encountered over portions of the area photographed. No camera or processing malfunctions were noted and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


a
b Line #57
c Line #58
d
e
f Line #60
g
h Line #58
i Line #59
j
k Line #63
l
m
n Line #66
o Line #64
p
q
r Line #65
FLIGHT 81-133
23 AUGUST 1981
DATA RUN
DUAL RC-10
1 of 2
Caribou Bar
LONE MOUNTAIN
Beaver
White Eye
Venetie Landing
Tsukon
Alexanders Village
FORT YUKON
Fort Yukon
Seventeenmile
Chalkyitsik
Salmon Village
Birch Creek
Kings Slough Village
Twentytwo Mile Village
Circle
Central
Livengood
West Fork
Sourdough Camp
Woodchopper Creek
Coal Creek
Alder Creek
Flume Creek
Miller Camp
Crooked Creek
Eagle
Dunbar
Standard
Moose Creek
Big Horn
Bluff
CHENA DOME
Chena Hot Springs
Caribou
146°
148°
144°
142°
66°
65°





FLIGHT 81-133
23 AUGUST 1981
DATA RUN
DUAL RC-10

FLIGHT SUMMARY REPORT

Flight No: 81-134

Date: 24 August 1981

FSR No: 1530

Julian Date: 236

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson
#0698 Support
Requestor: MacDonald

Area(s) Covered: Alaska

SENSOR DATA

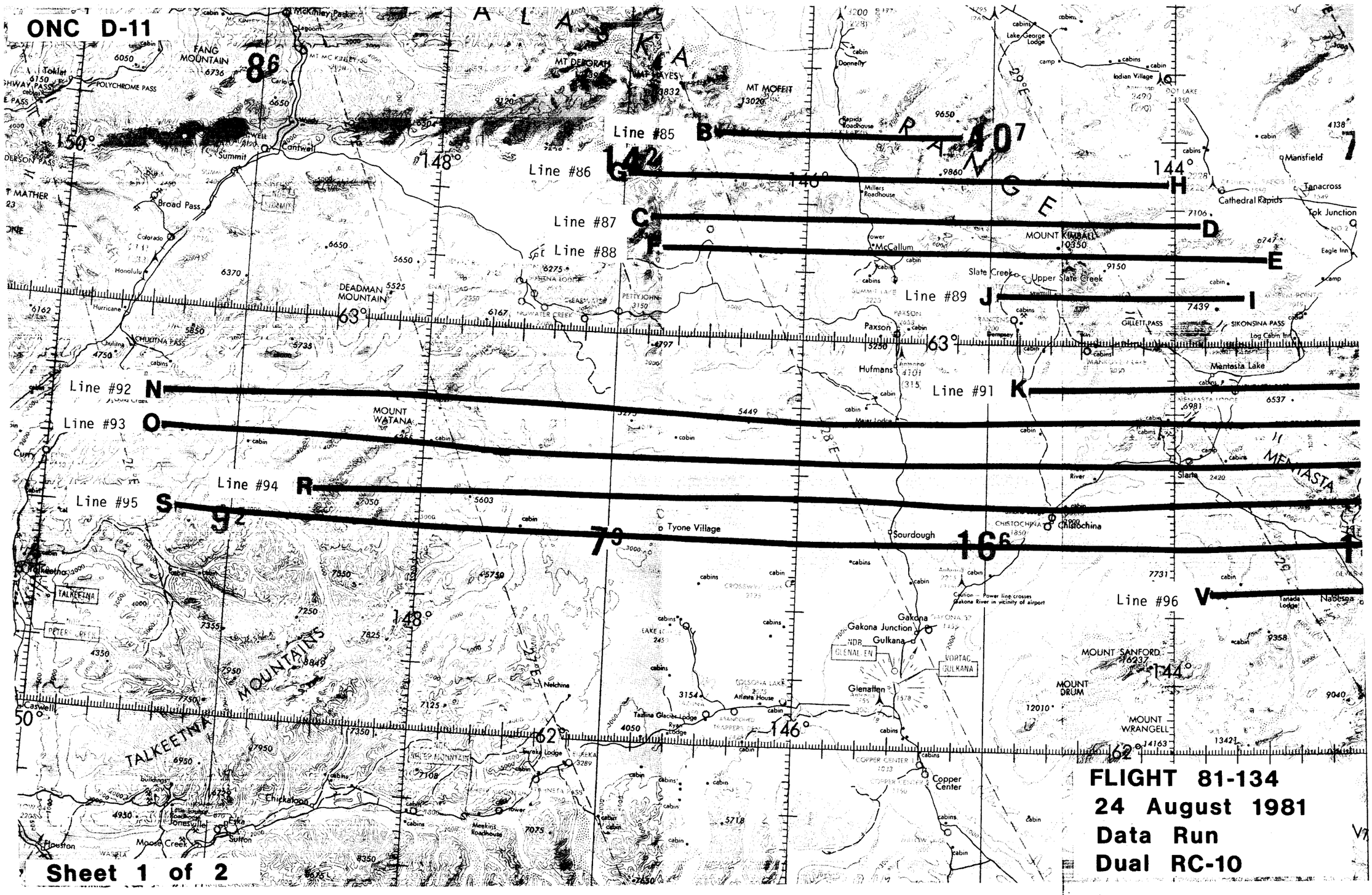
Accession No:	03013	03015
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	462	241
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

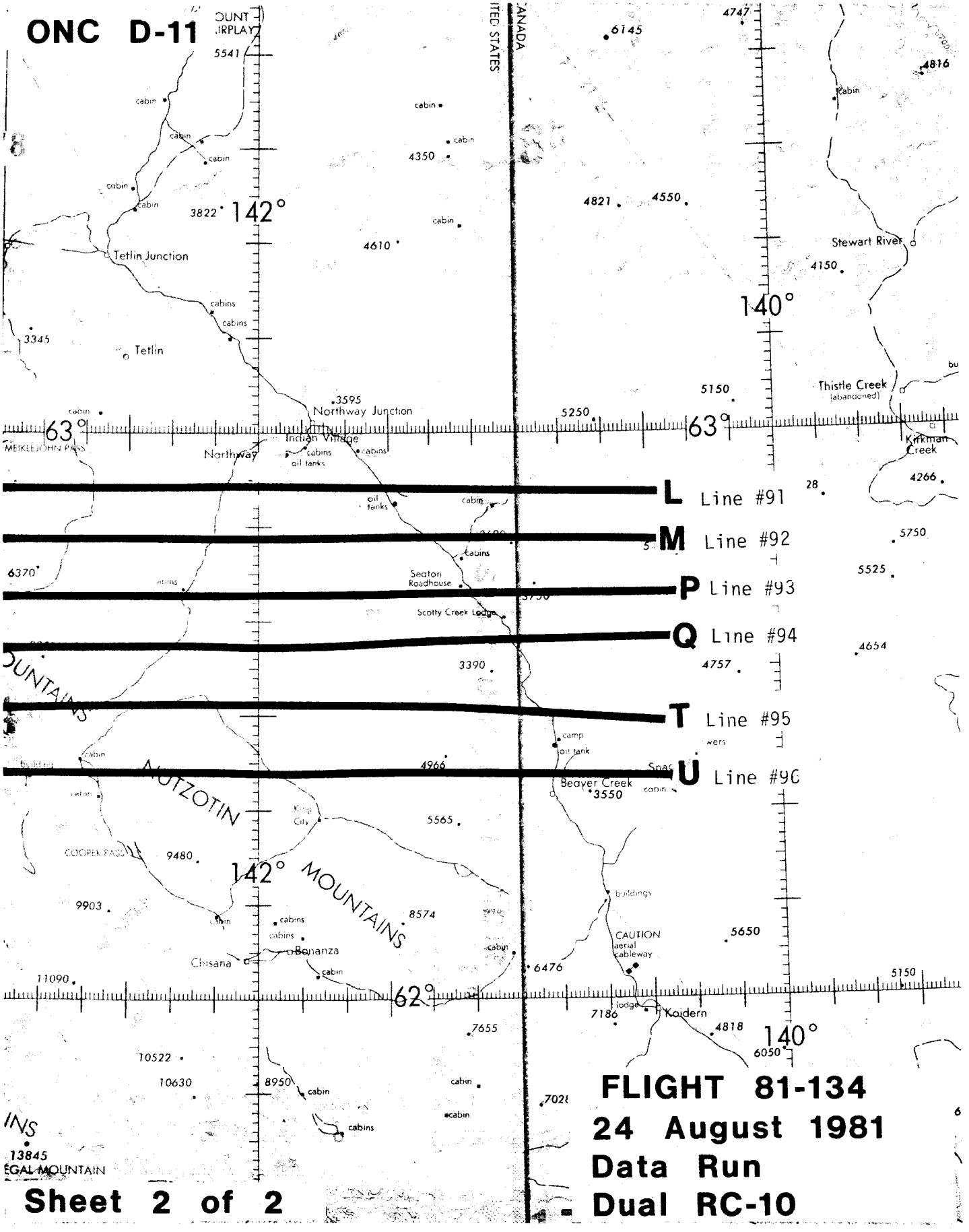
FLIGHT SUMMARY

81-134

This flight was flown in support of Flight Requests #0685 (Anderson, State of Alaska) and #0698 (MacDonald, NASA/JSC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photographic coverage was obtained over eastern Alaska (see Track Map).

The entire area was cloud free with the exception of some minor cirro-cumulus (see Flight Line Data Sheet). There were no camera or processing malfunctions, and the quality of the data is rated excellent. The LED time annotation on sensor #026 was misset by 12 hours 13 minutes, and the times for the 12 inch data were estimated from the 6 inch data.


ONC D-11
A L A S K A
Line #85
Line #86
Line #87
Line #88
Line #89
Line #91
Line #92
Line #93
Line #94
Line #95
Line #96
B
G
C
F
H
D
E
J
I
K
N
O
R
S
V
RANGE
MT MOFFIT
13020
MT DEBORAH
MT HAYES
MOUNT KIMBALL
MOUNT WATANA
DEADMAN MOUNTAIN
TALKEETNA MOUNTAINS
MOUNT SANFORD
MOUNT DRUM
MOUNT WRANGELL
FANG MOUNTAIN
Summit
Broad Pass
Colorado
Honolulu
Hurricane
Chulitna
CHULITNA PASS
GILLETT PASS
SIKONSINA PASS
Paxson
Hufmans
McCallum
Slate Creek
Upper Slate Creek
Mantasta Lake
Log Cabin Inn
Eagle Inn
Mansfield
Tanacross
Tok Junction
Cathedral Rapids
Lake George Lodge
Indian Village
Donnelly
Rapids Roadhouse
Millers Roadhouse
Lower McCallum
Tyone Village
Sourdough
Gakona
Gakona Junction
Gulkana
Glenallen
Atlasta House
Tazlina Glacier Lodge
Eureka Lodge
Meekins Roadhouse
Copper Center
Chickaloon
Jonesville
Sutton
Moose Creek
Houston
Talkeetna
Caswell
Curry
Nelchina
Chistochina
Slana
Nabesna
Tonsina Lodge
Petty John
Sikonsina Lake
Trapper Creek
Meiers Lodge
Summit Lake
Paxson Lake
Tazlina River
Gulkana River
Caution — Power line crosses Gakona River in vicinity of airport
VORTAC GULKANA
NDB GLENALLEN
FLIGHT 81-134
24 August 1981
Data Run
Dual RC-10
Sheet 1 of 2


ONC D-11
L Line #91
M Line #92
P Line #93
Q Line #94
T Line #95
U Line #96
FLIGHT 81-134
24 August 1981
Data Run
Dual RC-10
Sheet 2 of 2
Tetlin Junction
Tetlin
Northway Junction
Northway
Indian Village
Scotty Creek Lodge
Beaver Creek
Stewart River
Thistle Creek
(abandoned)
Kirkman Creek
Chisana
Bonanza
Koidern
CAUTION
aerial
cableway
142°
140°
63°
62°
MOUTZOTIN MOUNTAINS
CANADA
ITED STATES

FLIGHT SUMMARY REPORT

Flight No: 81-135

Date: 26 August 1981

FSR No: 1531

Julian Date: 238

Sensor Package: Dual RC-10

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: Eastern Alaska

SENSOR DATA

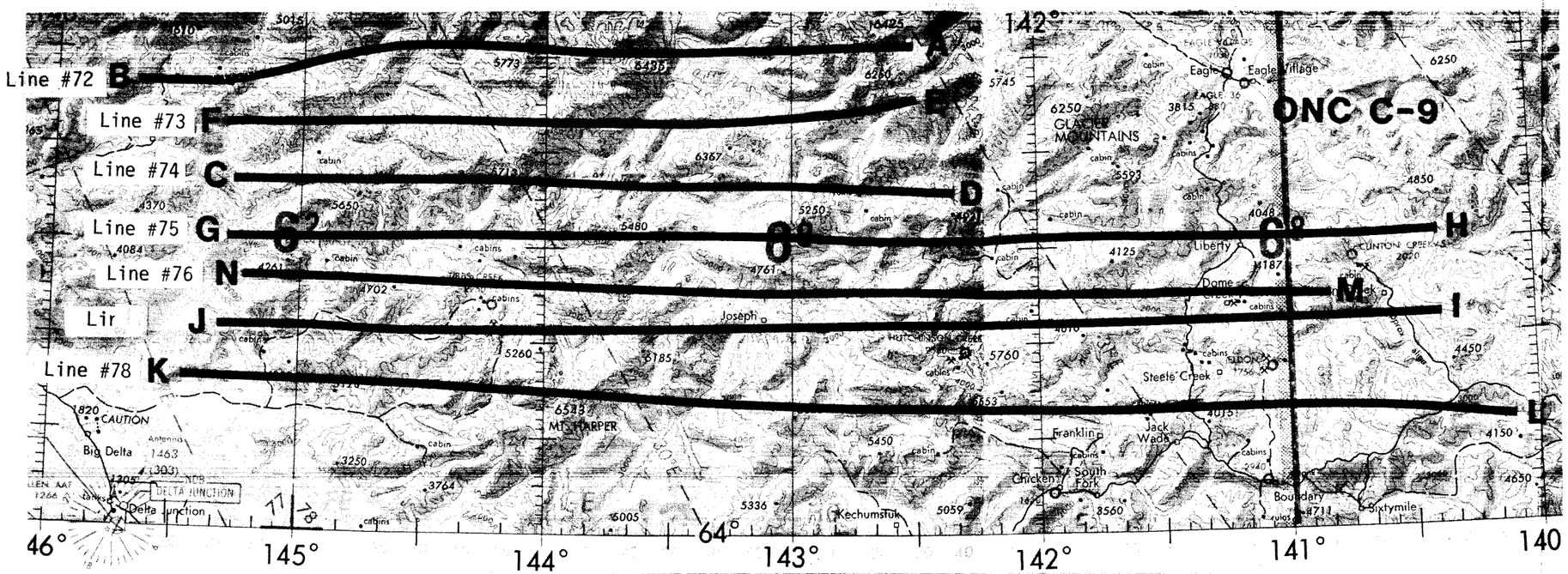
Accession No:	03016	03017
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	463	248
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

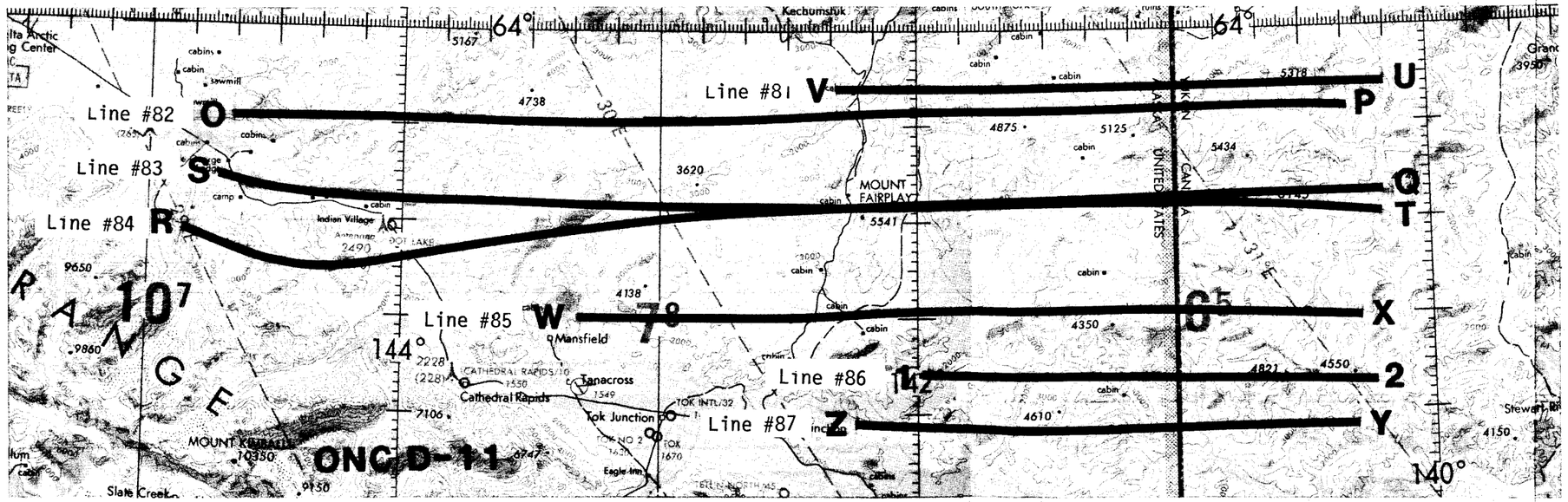
FLIGHT SUMMARY

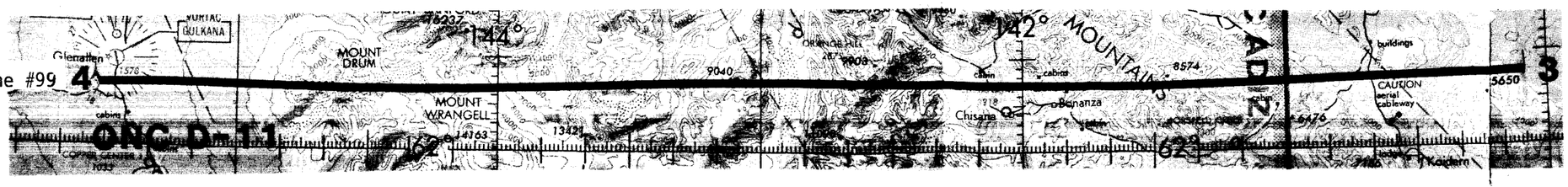
81-135

This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photographic coverage was obtained over eastern Alaska (see Track Map).

The entire area was cloud free. With the exception of an LED smear on one frame of the CIR film, no processing or camera malfunctions were noted, and the quality of the data is rated as excellent.







FLIGHT 81-135
26 AUGUST 1981
DATA RUN
DUAL RC-10 ——

FLIGHT SUMMARY REPORT

Flight No: 81-136 **Date:** 28 August 1981

FSR No: 1532 **Julian Date:** 240

Sensor Package: Dual RC-10 **Aircraft No:** 4

Purpose of Flight: #0685 Support
Requestor: Anderson

Area(s) Covered: West-central Alaska

SENSOR DATA

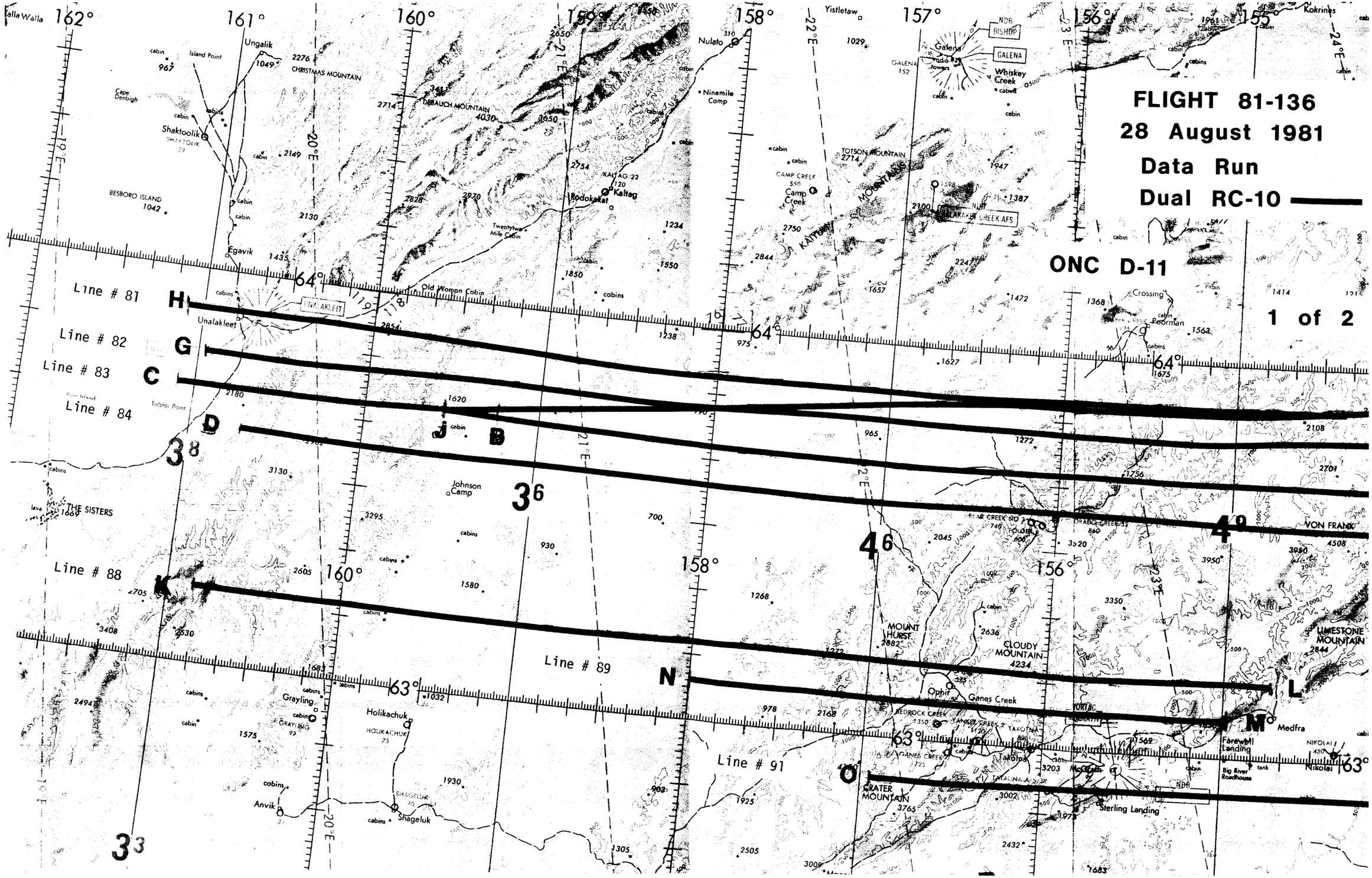
Accession No:	03018	03019
Sensor ID No:	026	033
Sensor Type:	RC-10	RC-10
Focal Length:	12" 304.97mm	6" 153.17mm
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402
Filtration:	Wratten 12	Wratten 12 + 2.2AV
Spectral Band:	510-900nm	510-700nm
f Stop:	8	8
Shutter Speed:	1/250	1/400
No. of Frames:	460	239
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

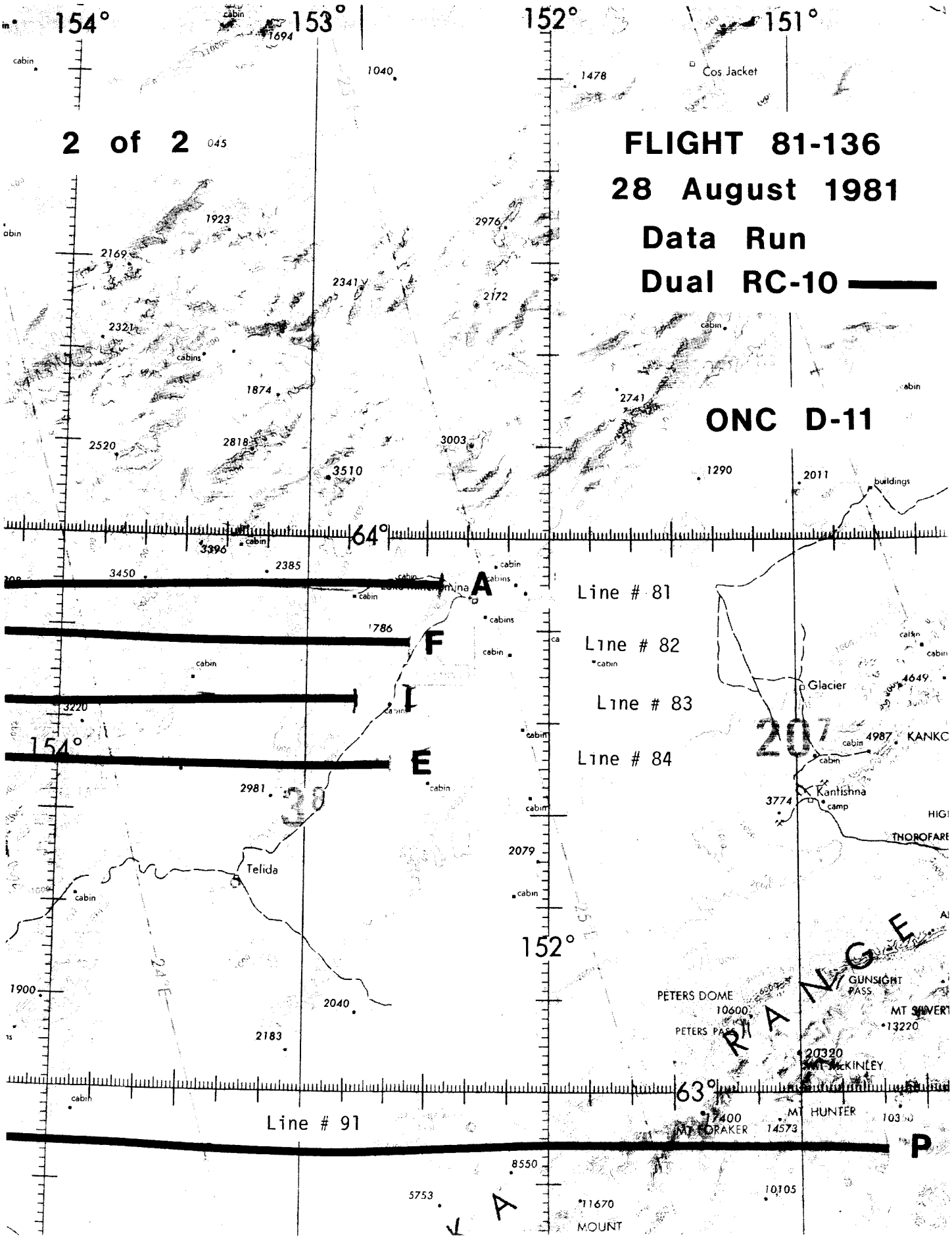
FLIGHT SUMMARY

81-136

This flight was flown in support of Flight Request #0685 (Anderson, State of Alaska) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Dual RC-10 photography was collected over west-central Alaska (see Track Map).

Minor to moderate cumulus, cirrus, and cirro-cumulus was encountered throughout the area. Due to an inertial navigation system failure the first data run (A-B), began on line 81 and drifted south to line 83. The balance of the flight was flown visually. No processing or camera malfunctions were noted, and the quality of the data is rated excellent.


FLIGHT 81-136
28 August 1981
Data Run
Dual RC-10
ONC D-11
1 of 2
Line # 81
Line # 82
Line # 83
Line # 84
Line # 88
Line # 89
Line # 91
H
G
C
D
J
B
K
N
O
M
L
Falls Walla
Ungalik
Island Point
Cape Denbigh
Shaktoolik
BESBORO ISLAND
Egavik
Unalakleet
THE SISTERS
Anvik
Grayling
Holikachuk
Shageluk
Johnson Camp
CHRISTMAS MOUNTAIN
DEBAUCH MOUNTAIN
Kaltag
Bodokakat
Twenty-Mile Cabin
Old Woman Cabin
Nulato
Ninemile Camp
Yistletaw
Galena
GALENA
NDB BISHOP
Whiskey Creek
TOTSON MOUNTAIN
CAMP CREEK
Camp Creek
KATTUNA MOUNTAINS
NUNIVAK CREEK AFS
Crossing
Peorman
Kokrines
MOUNT HURST
CLOUDY MOUNTAIN
Ophir
Ganes Creek
Takotna
CRATER MOUNTAIN
Sterling Landing
Farewell Landing
Big River Roadhouse
Medfra
Nikolai
VON FRANK
LIMESTONE MOUNTAIN
158°
159°
160°
161°
162°
156°
157°
155°
64°
63°
-20°E
-21°E
-22°E
-23°E
-24°E


2 of 2
FLIGHT 81-136
28 August 1981
Data Run
Dual RC-10
ONC D-11
Line # 81
Line # 82
Line # 83
Line # 84
Line # 91
154°
153°
152°
151°
64°
63°
Telida
Glacier
Kantishna
camp
PETERS DOME
10600
PETERS PASS
GUNSIGHT PASS
MT SILVER
13220
20320
MT McKINLEY
MT HUNTER
14573
MT BRAKER
11670
MOUNT
THOROFARE
RANGE
KANKC
4987
4649
3774
2011
1290
1478
Cos Jacket
buildings
cabin
cabins
camp

FLIGHT SUMMARY REPORT

Flight No: 81-137

Date: 29 August 1981

FSR No: 1533

Julian Date: 241

Sensor Package: RC-10 / APS

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson
#0047 Support
Requestor: Ferry

Area(s) Covered: Central Alaska

SENSOR DATA

Accession No:	03020	03021	---
Sensor ID No:	026	033	024
Sensor Type:	RC-10	RC-10	APS
Focal Length:	12" 304.97mm	6" 153.17mm	---
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402	---
Filtration:	Wratten 12	Wratten 12 + 2.2AV	---
Spectral Band:	510-900nm	510-700mn	---
f Stop:	8	8	---
Shutter Speed:	1/250	1/400	---
No. of Frames:	274	148	---
% Overlap:	60	60	---
Quality:	Excellent	Excellent	---
Remarks:	---	---	non-imaging sensor

FLIGHT SUMMARY

81-137

This flight was flown in support fo Flight Requests #0685 (Anderson, State of Alaska) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Color infrared and black and white photographic coverage was obtained over central Alaska utilizing the dual RC-10 configuration (see Track Map). Aerosol particulate sampler data was acquired at stepped altitudes during descent, but is not depicted on the Track Map.

Most flight lines were clear, with only minor cumulus and cirrus clouds occasionally encountered. No processing or camera malfunctions were noted, and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.

Line # 85

Line # 86

Line # 86

Line # 84

Line # 83

Line # 85

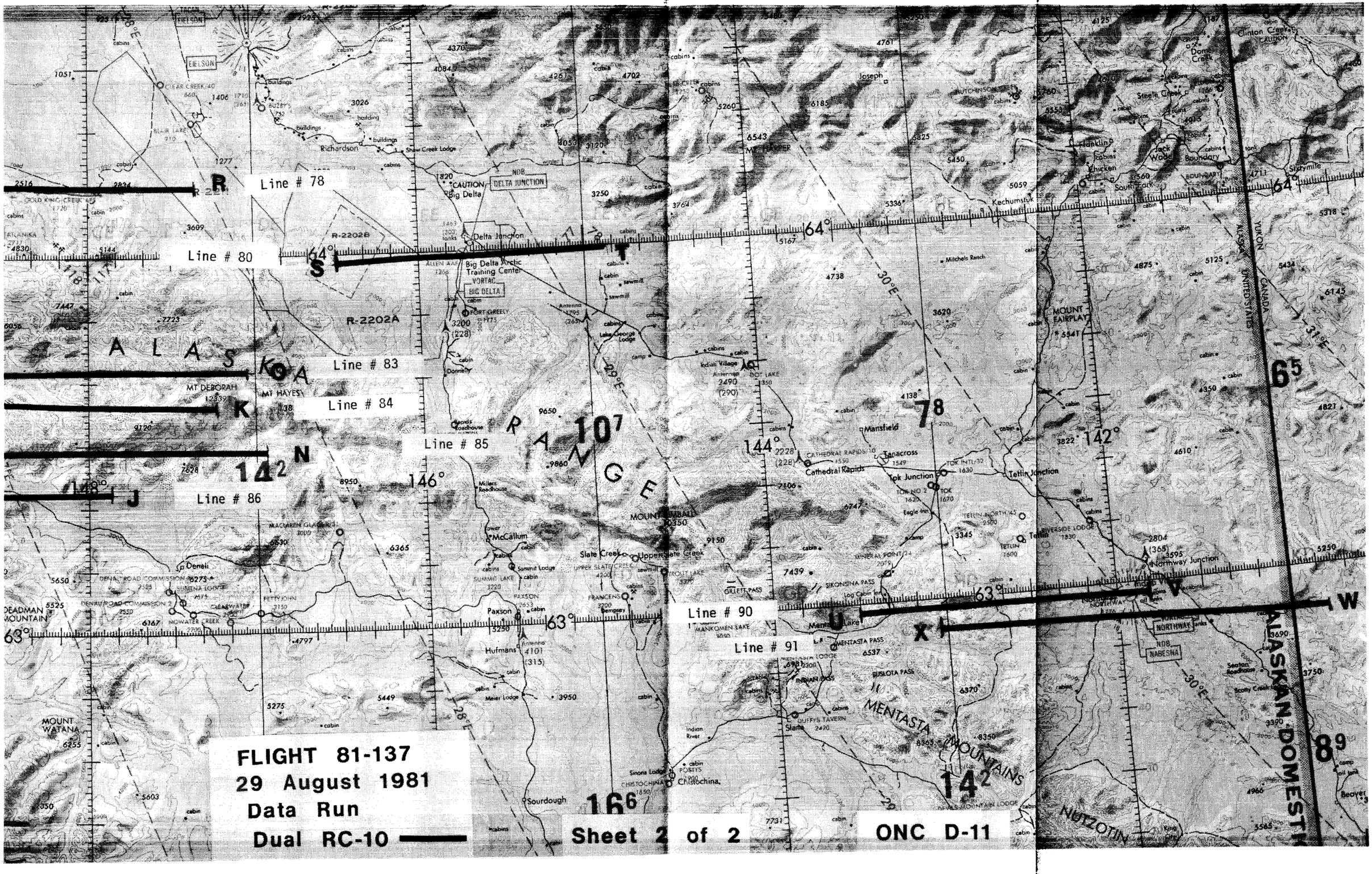
Line # 87

Line # 78

FLIGHT 81-137
29 August 1981
Data Run
Dual RC-10

Sheet 1 of 2

ONC D-11



FLIGHT 81-137
29 August 1981
Data Run
Dual RC-10

Sheet 2 of 2

ONC D-11

FLIGHT SUMMARY REPORT

Flight No: 81-138

Date: 30 August 1981

FSR No: 1534

Julian Date: 242

Sensor Package: Daedalus / APS

Aircraft No: 4

Purpose of Flight: #0889 Support
Requestor: Winter/IBM

Area(s) Covered: North Slope and Brooks Range, Alaska

SENSOR DATA

Accession No:	---	---
Sensor ID No:	059	024
Sensor Type:	DMS (1.25mrad)	APS
Focal Length:	---	---
Film Type:	---	---
Filtration:	---	----
Spectral Band:	.38 - 1.10um 10.4 - 12.5um	---
f Stop:	---	---
Shutter Speed:	---	---
No. of Frames:	---	---
% Overlap:	---	---
Quality:	---	---
Remarks:	Tape data only	Non-imaging sensor

FLIGHT SUMMARY

81-138

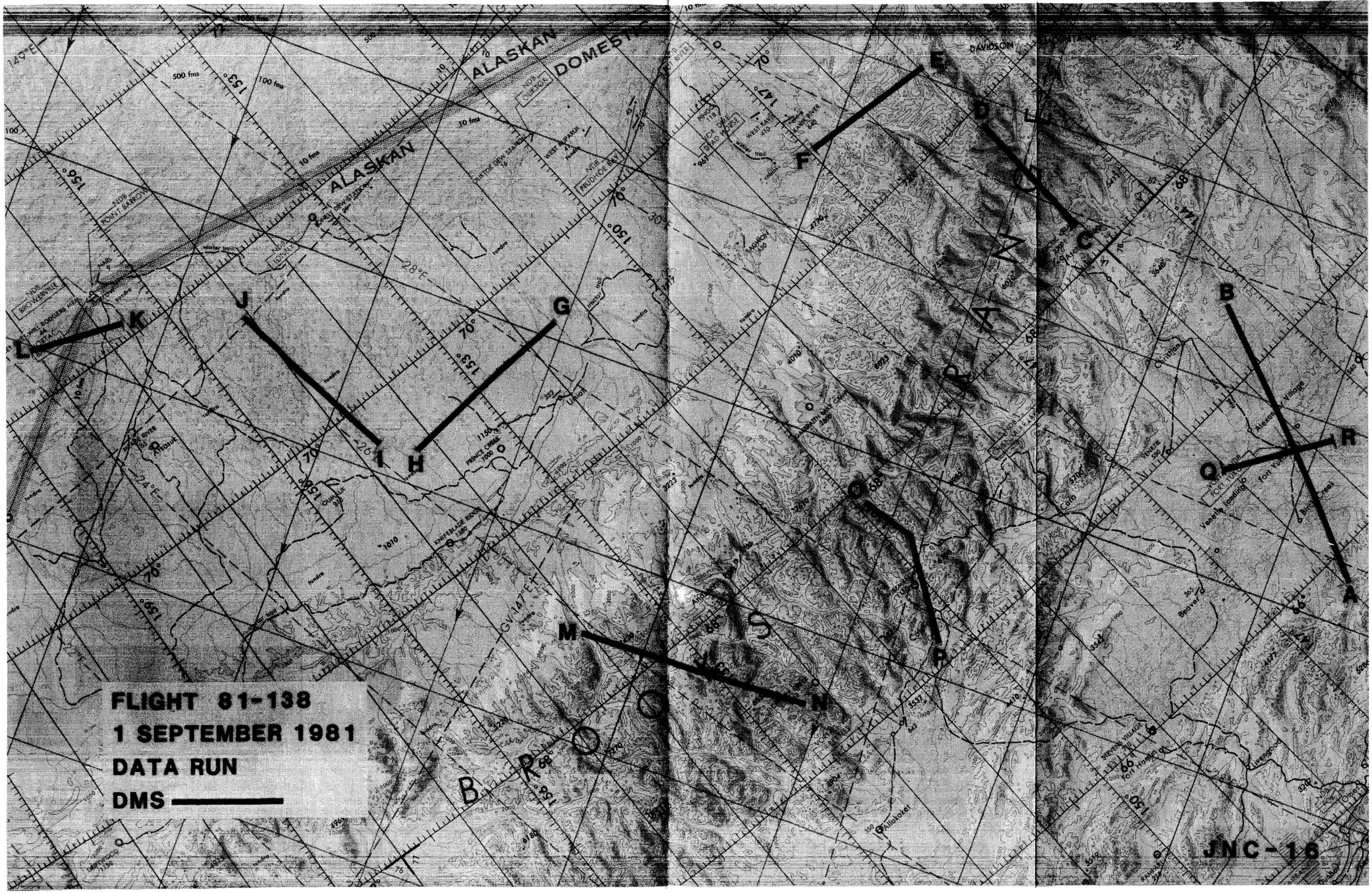
This flight was flown in support of Flight Request #0889 (Winter, IBM) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner (DMS) data was collected over the North Slope and Brooks Range areas of Alaska (see Track Map). Additionally, APS data was collected at two points not indicated on the Track Map.

The Daedalus Multispectral Scanner is a modified Daedalus DEI-1260 twelve channel scanner. The system is entirely digital, with ten channels in the visible and near visible portions of the spectrum and two channels in the thermal infrared region. The scanner has an IFOV of either 1.25 or 2.25 milliradians depending on the scanhead utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

IFOV	1.25mrad	2.5mrad
Pixels/scan line	716	716
Scan angle	42°	85°
Swath width	8nm	18nm
Scan rate	10 lines/sec	10 lines/sec
Resolution (from 65,000 ft)	80 ft	160 ft

Channel 1	38 - 42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	80 - .89um
Channel 4	.50 - .55um	Channel 10	90 - 1.10um
Channel 5	.55 - .60um	Channel 11	10.40 - 12.50um
Channel 6	.60 - .65um	Channel 12	10.40 - 12.50um (High Gain)

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


ALASKAN
ALASKAN
DOMESTIC
A
B
C
D
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F
G
H
J
K
L
M
N
O
P
Q
R
S
FLIGHT 81-138
1 SEPTEMBER 1981
DATA RUN
DMS
JNC-16

FLIGHT SUMMARY REPORT

Flight No: 81-139

Date: 1 September 1981

FSR No: 1535

Julian Date: 244

Sensor Package: Dual RC-10 / APS

Aircraft No: 4

Purpose of Flight: #0685 Support
Requestor: Anderson
#0047 Support
Requestor: Ferry

Area(s) Covered: Southeastern Alaska

SENSOR DATA

Accession No:	03022	03023	---
Sensor ID No:	026	033	024
Sensor Type:	RC-10	RC-10	APS
Focal Length:	12" 304.97mm	6" 153.17mm	---
Film Type:	Aerochrome Infrared, SO-193	Plus-X, 2402	---
Filtration:	Wratten 12	Wratten 12 + 2.2AV	---
Spectral Band:	510-900nm	510-700nm	---
f Stop:	8	8	---
Shutter Speed:	1/250	1/400	---
No. of Frames:	25	14	---
% Overlap:	60	60	---
Quality:	Excellent	Excellent	---
Remarks:	---	---	non-imaging sensor

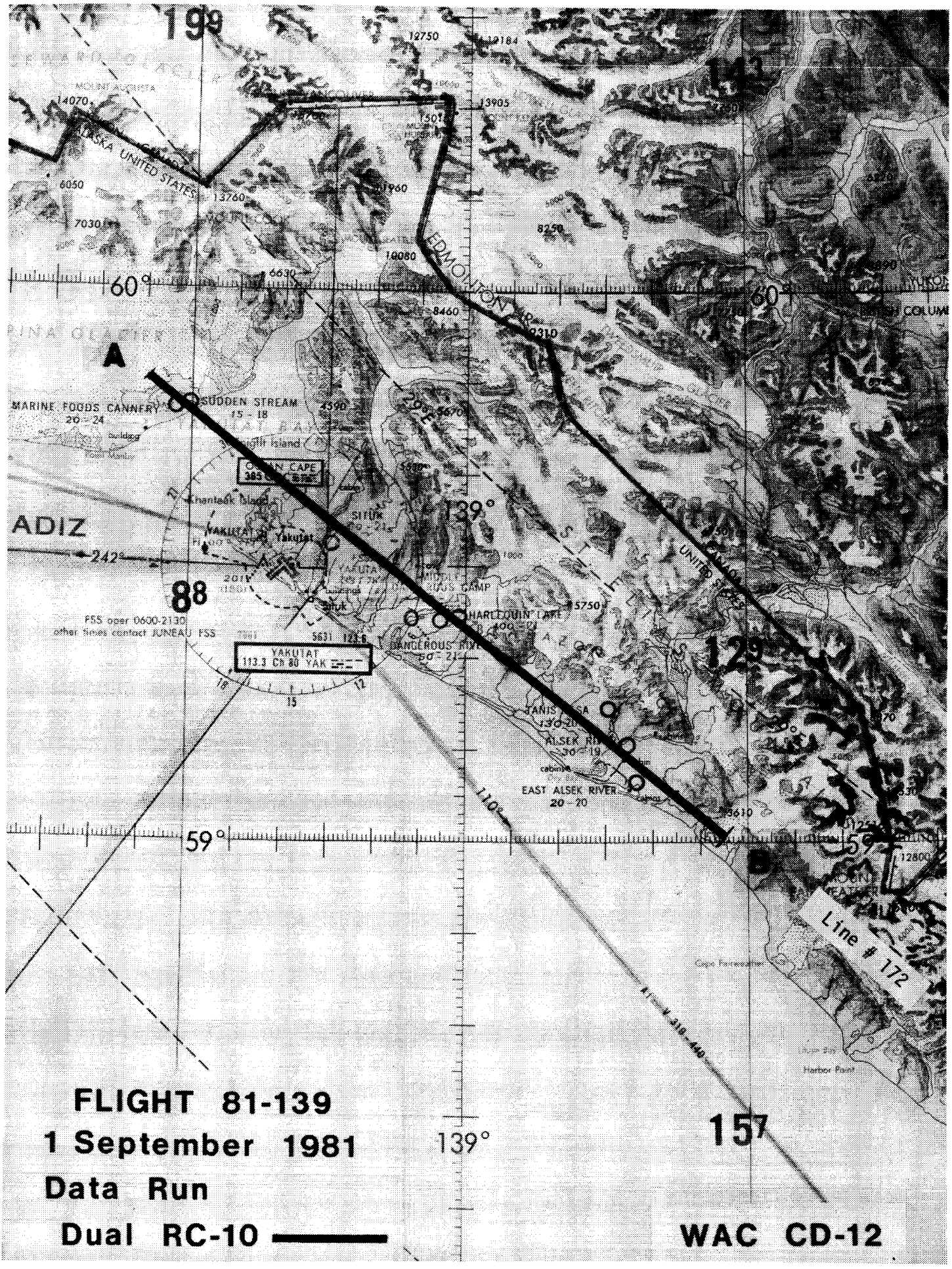
FLIGHT SUMMARY

81-139

This flight was flown in support of Flight Requests #0685 (Anderson, State of Alaska) and #0047 (Ferry, NASA/ARC) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Photographic coverage was obtained with the dual RC-10 configuration over the Yakutat area. Additionally, aerosol particulate sampler data was collected during climbout from Eielson Air Force Base in Alaska, but is not depicted on the Track Map. This flight concludes the FY 1981 deployment to Alaska in support of the Alaska High Altitude Photography Program.

The data collected on this filght is cloud free. No processing or camera malfunctions were noted, and the quality of the data is rated excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


199
88
129
157
A
B
60°
59°
139°
ADIZ
242°
110°
MARINE FOODS CANNERY
20 - 24
SUDDEN STREAM
15 - 18
YAKUTAT
113.3 CH 80 YAK
FSS oper 0600-2130
other times contact JUNEAU FSS
HARLEQUIN LAKE
DANGEROUS RIVER
EAST ALSEK RIVER
20 - 20
EDMONTON
Line # 172
FLIGHT 81-139
1 September 1981
Data Run
Dual RC-10
WAC CD-12

FLIGHT SUMMARY REPORT

Flight No: 81-140

Date: 2 September 1981

FSR No: 1536

Julian Date: 245

Sensor Package: HR-732

Aircraft No: 6

Purpose of Flight: #0912 Support
Requestor: Crystal

Area(s) Covered: South-central Oregon

SENSOR DATA

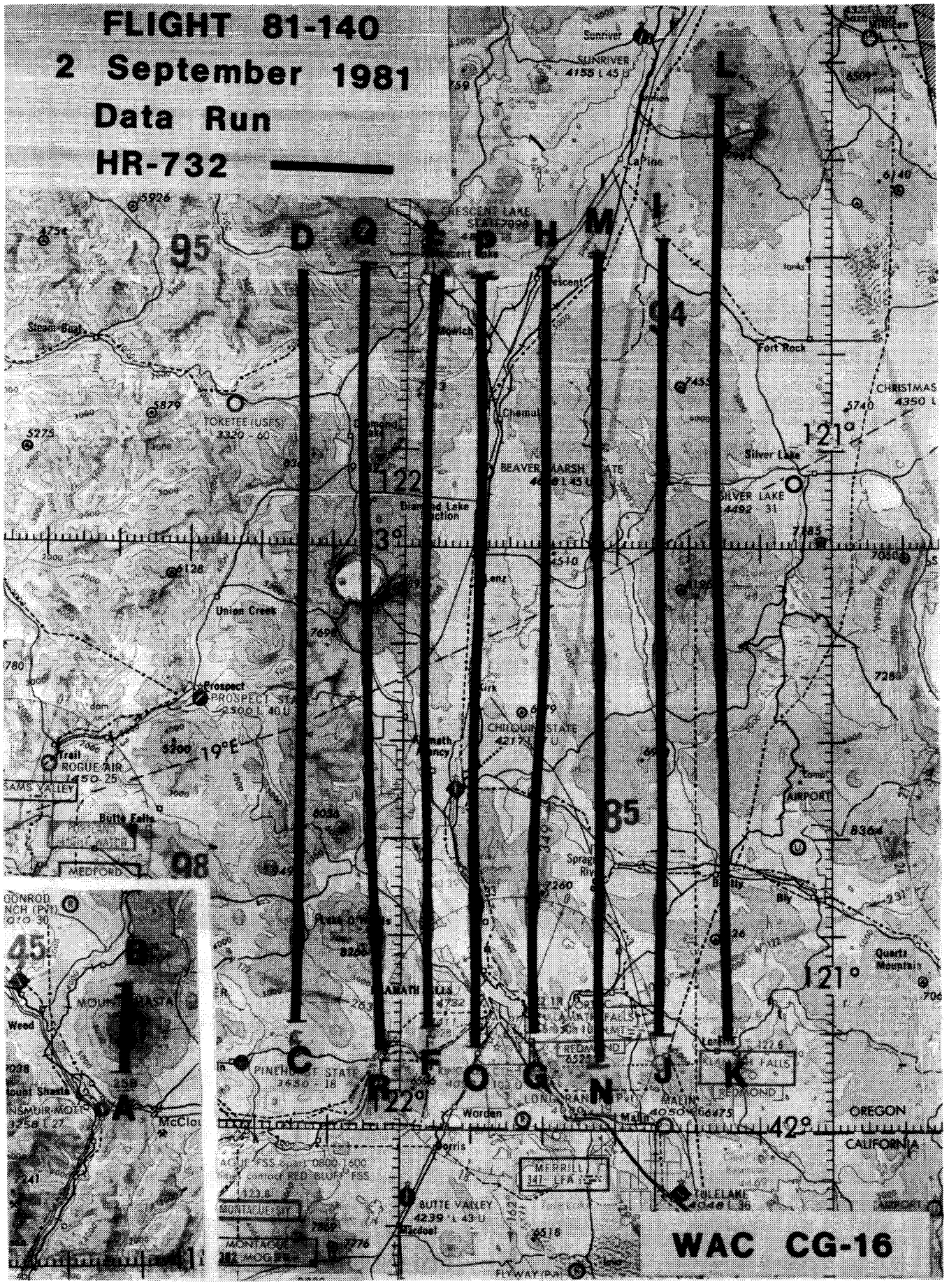
Accession No:	03024
Sensor ID No:	039
Sensor Type:	HR-732
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .30B
Spectral Band:	510
f Stop:	8
Shutter Speed:	1/75
No. of Frames:	458
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-140

This flight was flown in support of Flight Request #0912 (Crystal, US Forest Service) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. HR-732 coverage was acquired over south-central Oregon (see Track Map).

Moderate to heavy cirrus was encountered in the northeast portion of the area. Intermittent film mismetering was evident, believed to be caused by splicing and respooling which resulted in uneven tension on the supply spool. No other camera or processing malfunctions were noted, and the quality of the data is rated excellent.


FLIGHT 81-140
2 September 1981
Data Run
HR-732
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
95
94
85
98
45
122°
121°
42°
WAC CG-16

FLIGHT SUMMARY REPORT

Flight No: 81-142

Date: 9 September 1981

FSR No: 1553

Julian Date: 252

Sensor Package: Daedalus Multispectral Scanner (DMS)
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0666Z Support
Requestor: Wilson
#0047 Support
Requestor: Ferry

Area(s) Covered: Boise, Idaho
Spokane, Washington

SENSOR DATA

Accession No:	---	---
Sensor ID No:	059	024
Sensor Type:	DMS (Configuration A)	APS
Focal Length:	---	---
Film Type:	---	---
Filtration:	---	---
Spectral Band:	.38-1.10um 2.05-2.35um	---
f Stop:	---	---
Shutter Speed:	---	---
No. of Frames:	---	---
% Overlap:	---	---
Quality:	---	---
Remarks:	1.25mrad configuration Tape data only	Non-imaging sensor

FLIGHT SUMMARY

81-142

This flight was flown in support of Flight Requests #0666Z (Wilson, NASA-Ames) and #0047 (Ferry, NASA-Ames) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner data was acquired over Boise, Idaho, and Spokane, Washington. Aerosol Particulate Sampler data was also acquired, but is not shown on the track map.

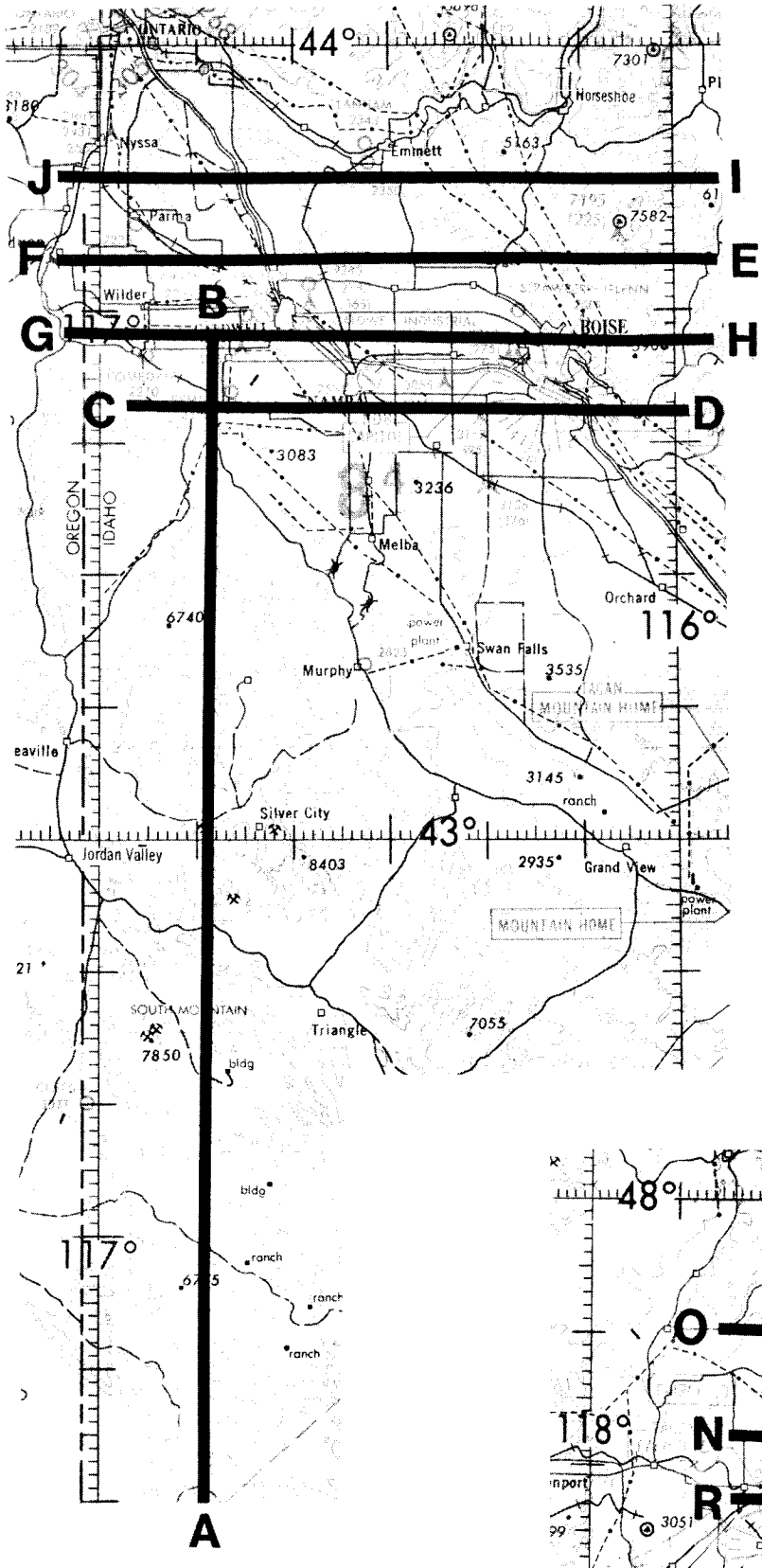
The Daedalus Multispectral Scanner is a twelve channel digital system modified to simulate some channels of the Thematic Mapper. The twelve channels cover the visible and near visible portions of the spectrum, with one channel in the thermal infrared region, depending on the configuration utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

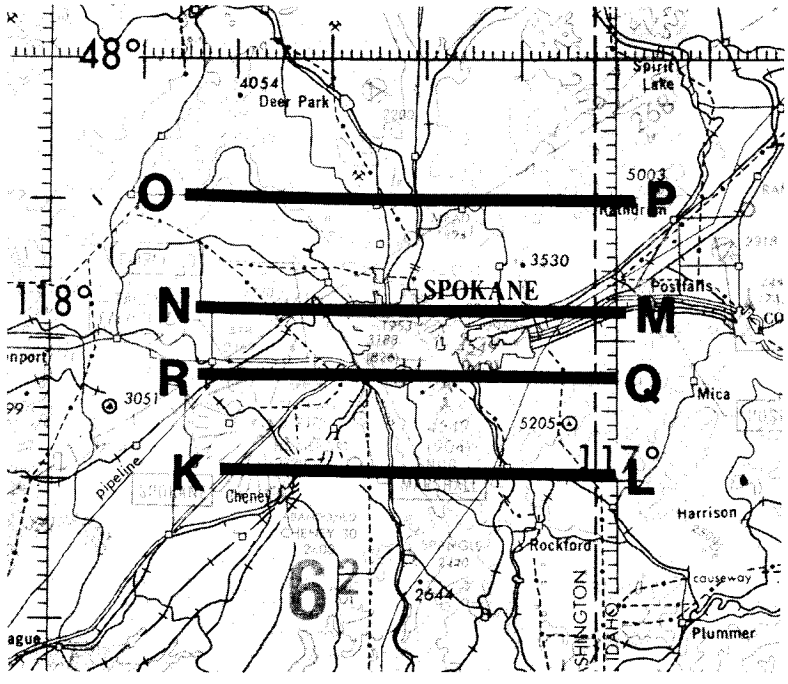
IFOV	1.25mrad
Pixels/scan line	716
Scan angle	42.5°
Swath width	8nm
Scan rate	12.5 scans/sec
Resolution (from 65,000 ft)	80 ft

A Configuration:

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	2.05 - 2.35um
Channel 6	.60 - .65um	Channel 12	2.05 - 2.35um (High Gain)

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.





FLIGHT 81-142
9 SEPTEMBER 1981
DATA RUN
DMS

ONC F-16

FLIGHT SUMMARY REPORT

Flight No: 81-153

Date: 29 July 1981

FSR No: 1521

Julian Date: 210

Sensor Package: A-4 Configuration

Aircraft No: 6

Purpose of Flight: Functional Check Flight

Area(s) Covered: Sacramento Valley, California

SENSOR DATA

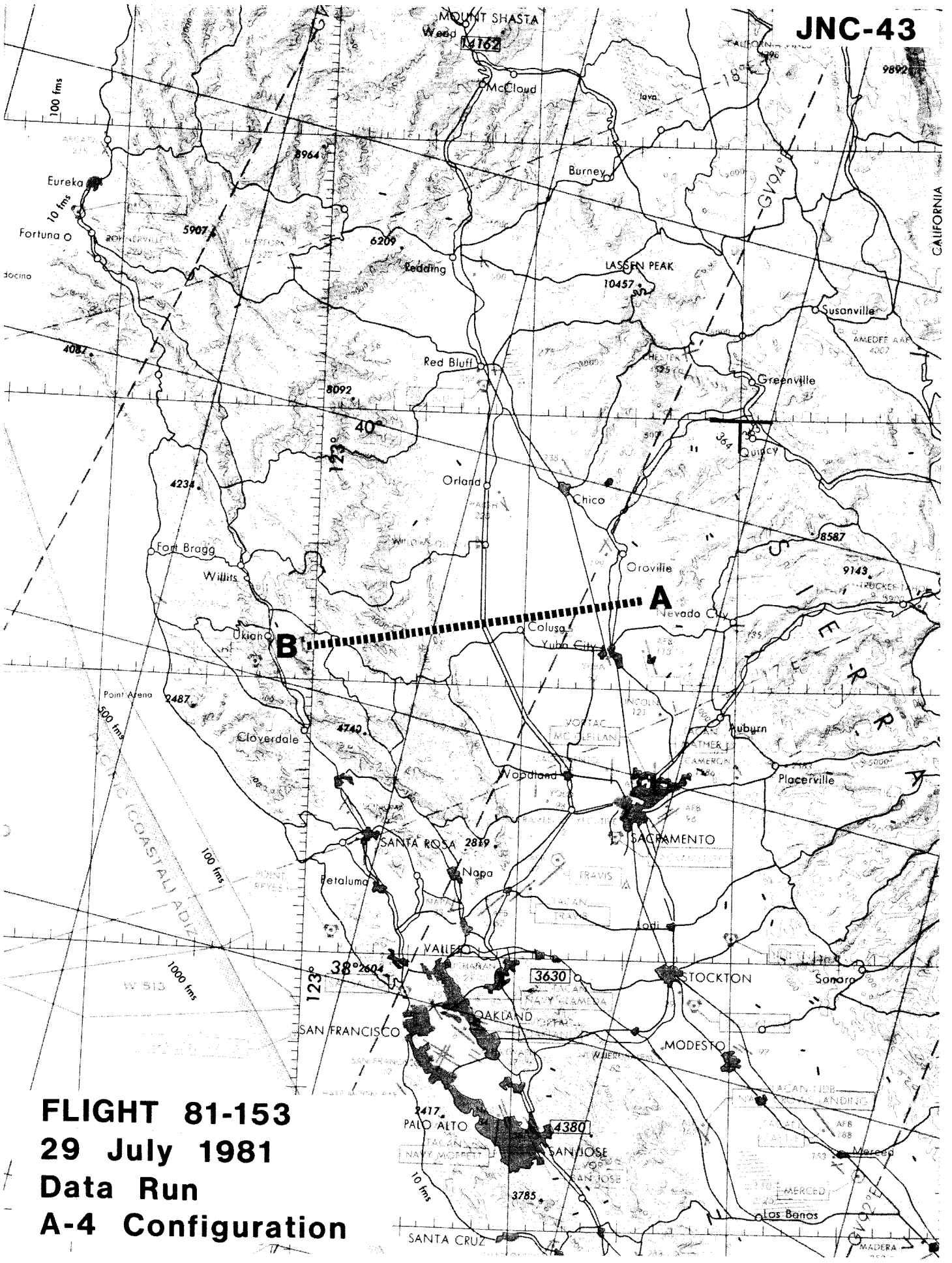
Accession No:	03000	03001
Sensor ID No:	034	039
Sensor Type:	RC-10	HR-732
Focal Length:	12" 304.66mm	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131	Panatomic-X, 3400
Filtration:	CC .20B	Wratten 12
Spectral Band:	510-900nm	510-700nm
f Stop:	4	8
Shutter Speed:	1/200	1/250
No. of Frames:	23	42
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-153

This flight was a functional check flight. The A-4 configuration was utilized to acquire photography over the Sacramento Valley (see Track Map).

The entire area was cloud free. No camera or processing malfunctions were noted, and the quality of the data is rated excellent.


JNC-43
MOUNT SHASTA
Weed
14162
McCloud
Burney
Lava
Eureka
Fortuna
Redding
LASSEN PEAK
10457
Susanville
Red Bluff
Greenville
Quincy
Orland
Chico
Oroville
Willits
Fort Bragg
Ukiah
Colusa
Yuba City
Nevada City
A
B
Point Arena
Cloverdale
Woodland
Auburn
Placerville
SACRAMENTO
SANTA ROSA
2819
Petaluma
Napa
VALLEJO
3630
STOCKTON
Sonora
OAKLAND
SAN FRANCISCO
MODESTO
PALO ALTO
4380
SAN JOSE
Los Banos
SANTA CRUZ
MADERA
CALIFORNIA
100 fms
10 fms
500 fms
1000 fms
40°
123°
38°
V04
FLIGHT 81-153
29 July 1981
Data Run
A-4 Configuration

FLIGHT SUMMARY REPORT

Flight No: 81-154

Date: 30 July 1981

FSR No: 1522

Julian Date: 211

Sensor Package: A-4 Configuration

Aircraft No: 6

Purpose of Flight: #0838 Support
Requestor: Griffin

Area(s) Covered: Idaho

SENSOR DATA

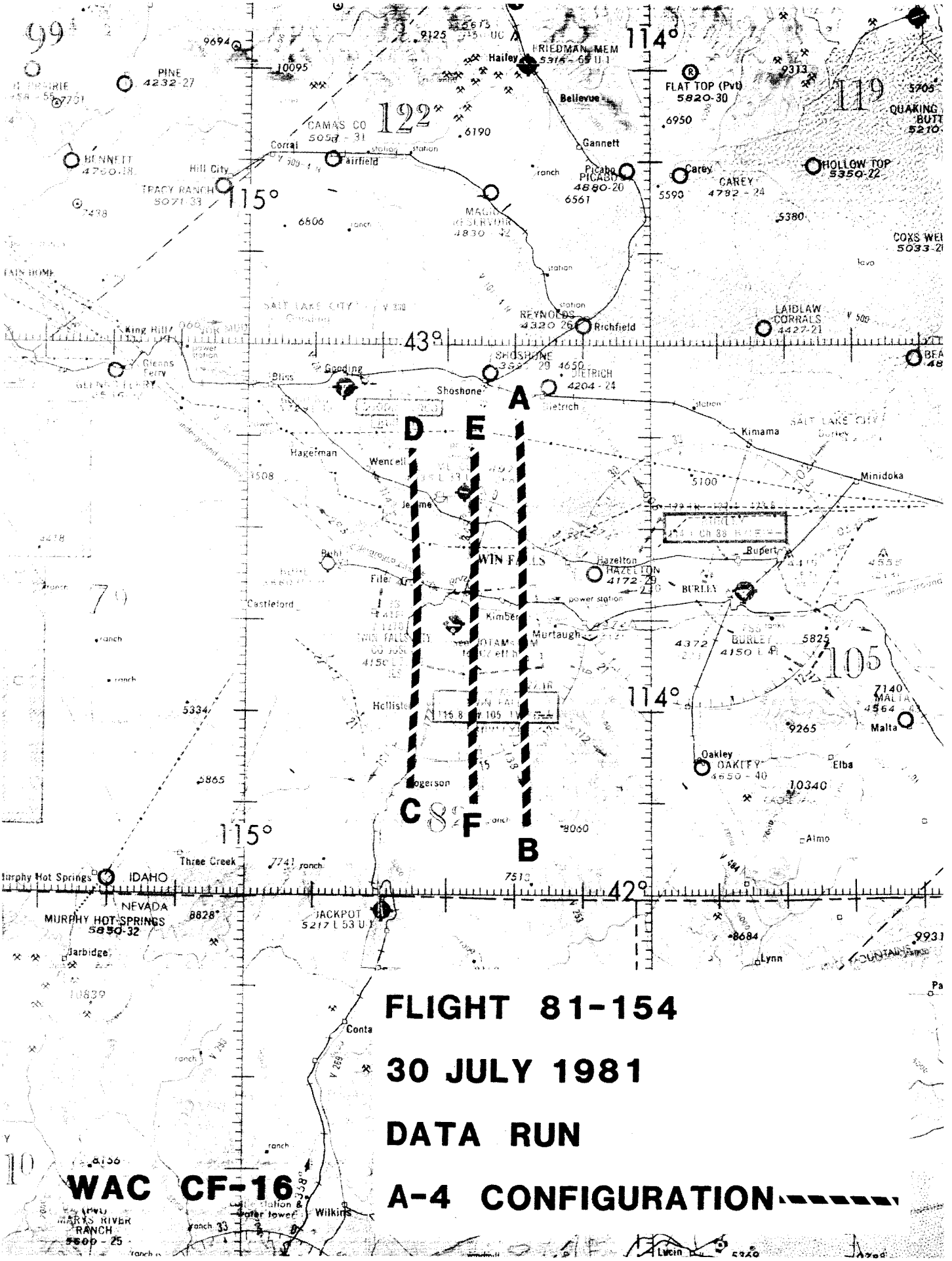
Accession No:	03002	03003
Sensor ID No:	034	039
Sensor Type:	RC-10	HR-732
Focal Length:	12" 304.66mm	24" 609.6mm
Film Type:	Aerochrome Infrared, SO-193	Aerochrome Infrared, SO-193
Filtration:	Wratten 12	Wratten 12 + 10B
Spectral Band:	510-900nm	510-900nm
f Stop:	8	8
Shutter Speed:	1/250	1/250
No. of Frames:	38	66
% Overlap:	60	60
Quality:	Excellent	Excellent
Remarks:	---	---

FLIGHT SUMMARY

81-154

This flight was flown in support of Flight Request #0838 (Griffin, NASA/ERL) as part of the AgGRISTARS program, under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. The A-4 Configuration was utilized to acquire photography over Twin Falls, Idaho (see Track Map).

The entire area was cloud free. No camera or processing malfunctions were noted, and the quality of the data is rated as excellent.


A
B
C
D
E
F
FLIGHT 81-154
30 JULY 1981
DATA RUN
A-4 CONFIGURATION
WAC CF-16

FLIGHT SUMMARY REPORT

Flight No: 81-155 **Date:** 31 July 1981

FSR No: 1526 **Julian Date:** 212

Sensor Package: DMS/TM Simulator **Aircraft No:** 6

Purpose of Flight: #0666 Support
Requestor: Lumb

Area(s) Covered: Santa Cruz; Bakersfield Area
(California)

SENSOR DATA

Accession No: ---

Sensor ID No: 059

Sensor Type: DMS/TM Simulator (Configuration A)

Focal Length: ---

Film Type: ---

Filtration: ---

Spectral Band: .38 - 2.35um

f Stop: ---

Shutter Speed: ---

No. of Frames: ---

% Overlap: ---

Quality: ---

Remarks: Tape Data Only

FLIGHT SUMMARY

81-155

This flight was flown in support of Flight Request #0666 (Lumb, NASA/Ames) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner (DMS) data was acquired during a flight over the Santa Cruz and Bakersfield areas of California (see Track Map).

The Daedalus Multispectral Scanner is a twelve channel digital system modified to simulate some channels of the Thematic Mapper. The twelve channels cover the visible and near visible portions of the spectrum, with one channel in the thermal infrared region, depending on the configuration utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

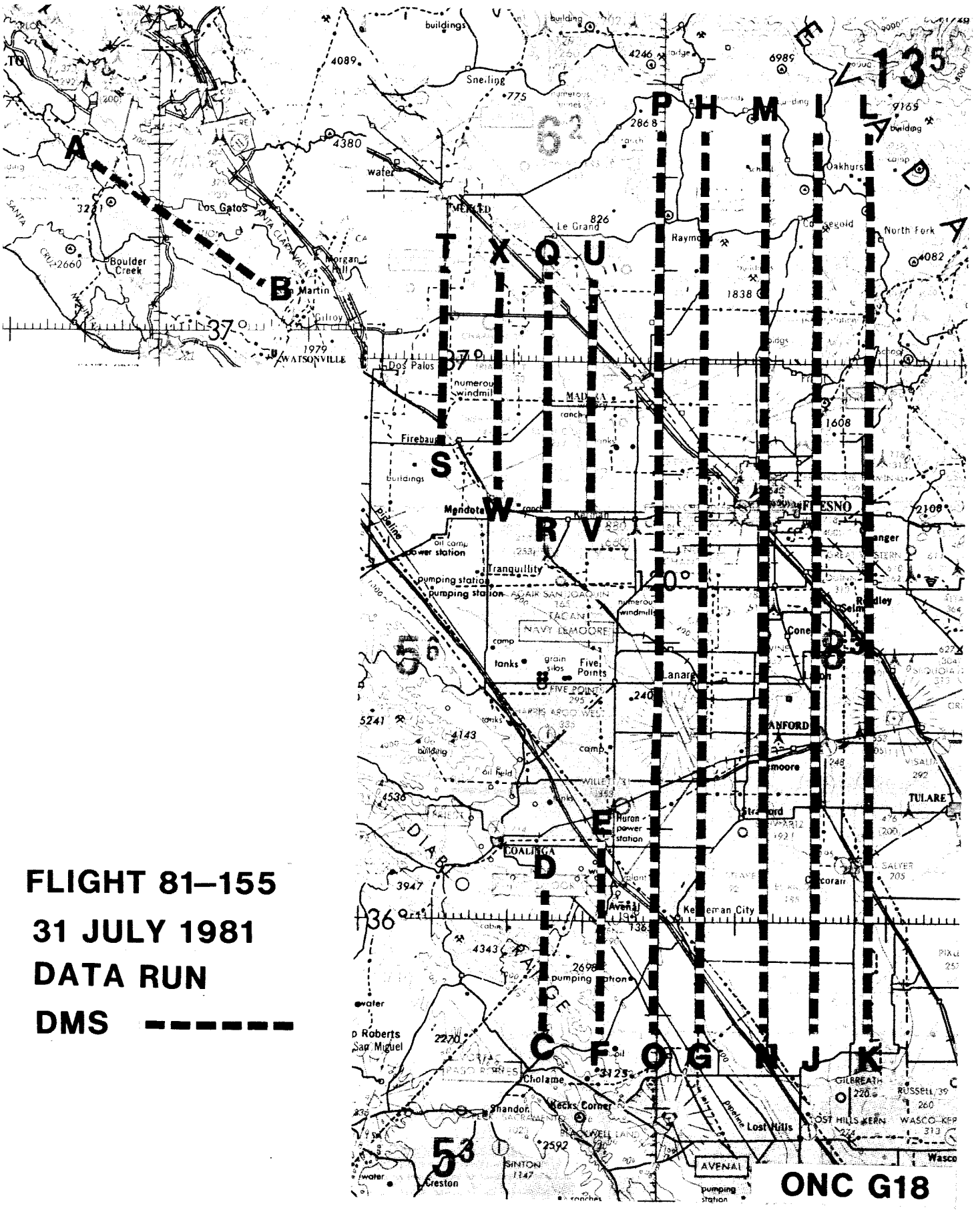
IFOV	1.25mrad
Pixels/scan line	716
Scan angle	42.5°
Swath width	8nm
Scan rate	12.5 scans/sec
Resolution (from 65,000 ft)	80 ft

A Configuration:

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	2.05 - 2.35um
Channel 6	.60 - .65um	Channel 12	2.05 - 2.35um (High Gain)

B Configuration:

Channel 11	1.50 - 1.75um
Channel 12	10.5 - 12.5um



FLIGHT 81–155

31 JULY 1981

DATA RUN

DMS ------

FLIGHT SUMMARY REPORT

Flight No: 81-158

Date: 4 August 1981

FSR No: 1527

Julian Date: 216

Sensor Package: DMS/TM Simulator

Aircraft No: 6

Purpose of Flight: #0666 Support
Requestor: Lumb

Area(s) Covered: Santa Cruz; Bakersfield Area
(California)

SENSOR DATA

Accession No: ---

Sensor ID No: 059

Sensor Type: DMS/TM Simulator (Configuration B)

Focal Length: ---

Film Type: ---

Filtration: ---

Spectral Band: 1.50 - 1.75um; 10.5 - 12.5um

f Stop: ---

Shutter Speed: ---

No. of Frames: ---

% Overlap: ---

Quality: ---

Remarks: Tape Data Only

FLIGHT SUMMARY

81-158

This flight was flown in support of Flight Request #0666 (Lumb, NASA/Ames) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner (DMS) data was acquired during a flight over the Santa Cruz and Bakersfield areas of California (see Track Map).

The Daedalus Multispectral Scanner is a twelve channel digital system modified to simulate some channels of the Thematic Mapper. The twelve channels cover the visible and near visible portions of the spectrum, with one channel in the thermal infrared region, depending on the configuration utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

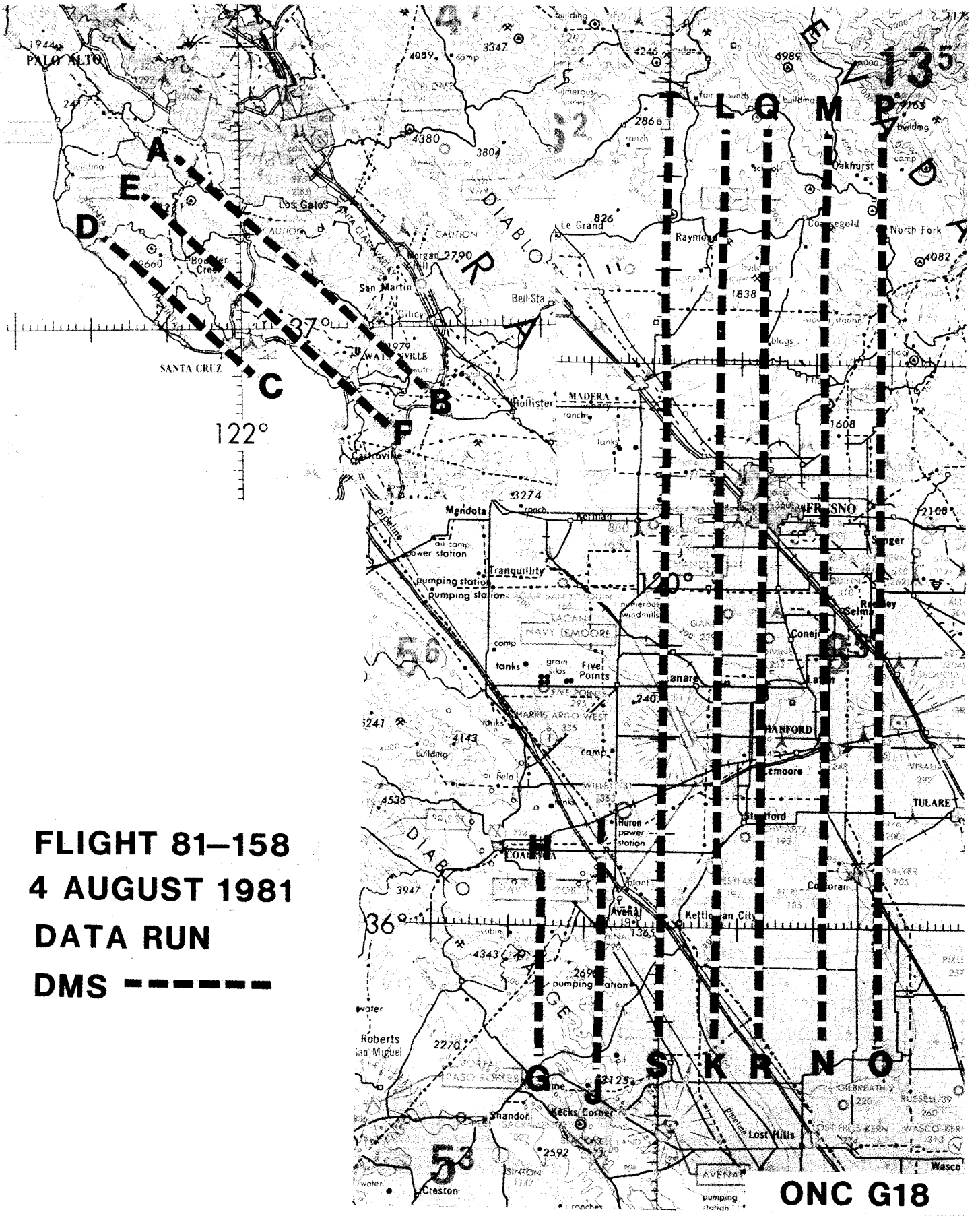
IFOV	1.25mrad
Pixels/scan line	716
Scan angle	42.5°
Swath width	8nm
Scan rate	12.5 scans/sec
Resolution (from 65,000 ft)	80 ft

A Configuration:

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	2.05 - 2.35um
Channel 6	.60 - .65um	Channel 12	2.05 - 2.35um (High Gain)

B Configuration:

Channel 11	1.50 - 1.75um
Channel 12	10.5 - 12.5um



FLIGHT 81–158
4 AUGUST 1981
DATA RUN
DMS ------

FLIGHT SUMMARY REPORT

Flight No: 81-168

Date: 1 September 1981

FSR No: 1537

Julian Date: 244

Sensor Package: RC-10

Aircraft No: 6

Purpose of Flight: #0911 Support
Requestor: Montanari

Area(s) Covered: Utah/Nevada

SENSOR DATA

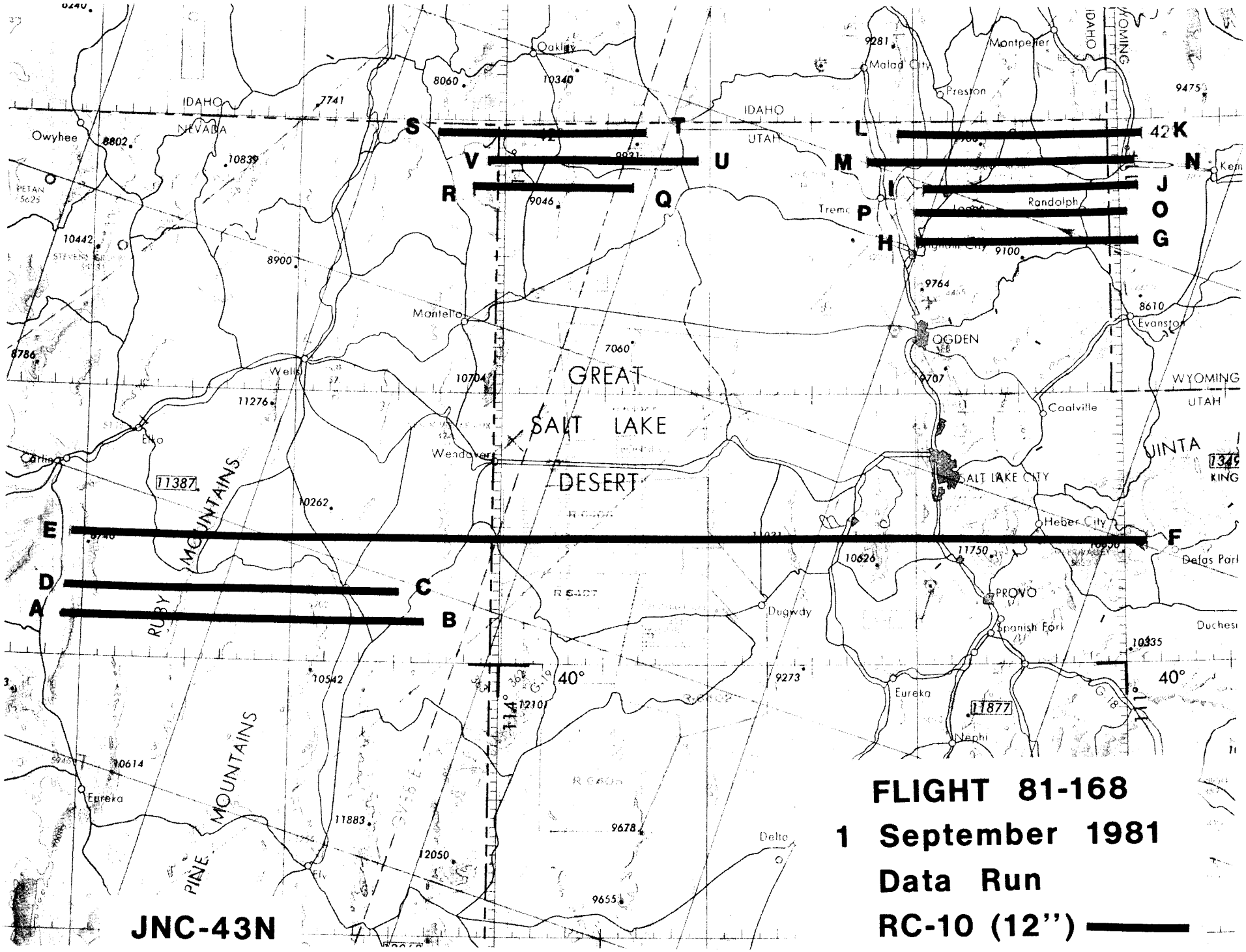
Accession No:	03025
Sensor ID No:	034
Sensor Type:	RC-10
Focal Length:	12" 304.66mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20B
Spectral Band:	510-900nm
f Stop:	4
Shutter Speed:	1/200
No. of Frames:	233
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-168

This flight was flown in support of Flight Request #0911 (Montanari, USFWS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Color infrared photography was acquired over portions of Nevada and Utah in support of the National Wetlands Inventory.

The area flown was essentially cloud free with only minor cumulus encountered on one flight line. No processing or camera malfunctions were noted, and the quality of the data is rated excellent.


S
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F
D
C
A
B
GREAT
SALT LAKE
DESERT
IDAHO
NEVADA
UTAH
WYOMING
Owyhee
Oakley
Malad City
Montpelier
Preston
Randolph
Montello
Wells
Ely
Ely
OGDEN
Evanston
Coalville
SALT LAKE CITY
Heber City
PROVO
Spanish Fork
Dugway
Eureka
Nephi
Delta
Duchesne
Uinta
RUBY MOUNTAINS
PINE MOUNTAINS
40°
114°
11387
11877
11750
10626
12101
12050
11883
10614
10542
10262
11276
10704
9764
9707
9100
9046
9678
9655
9273
8900
8786
8802
8610
7741
7060
10340
10839
10442
9475
9281
JNC-43N
FLIGHT 81-168
1 September 1981
Data Run
RC-10 (12'')

FLIGHT SUMMARY REPORT

Flight No: 81-170

Date: 16 September 1981

FSR No: 1546

Julian Date: 259

Sensor Package: Itek IRIS II

Aircraft No: 6

Purpose of Flight: #0900 Support
Requestor: Weber

Area(s) Covered: Idaho/Wyoming

SENSOR DATA

Accession No:	03027
Sensor ID No:	070
Sensor Type:	IRIS II
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20C
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/350
No. of Frames:	646
% Overlap:	60
Quality:	Excellent
Remarks:	90° FOV

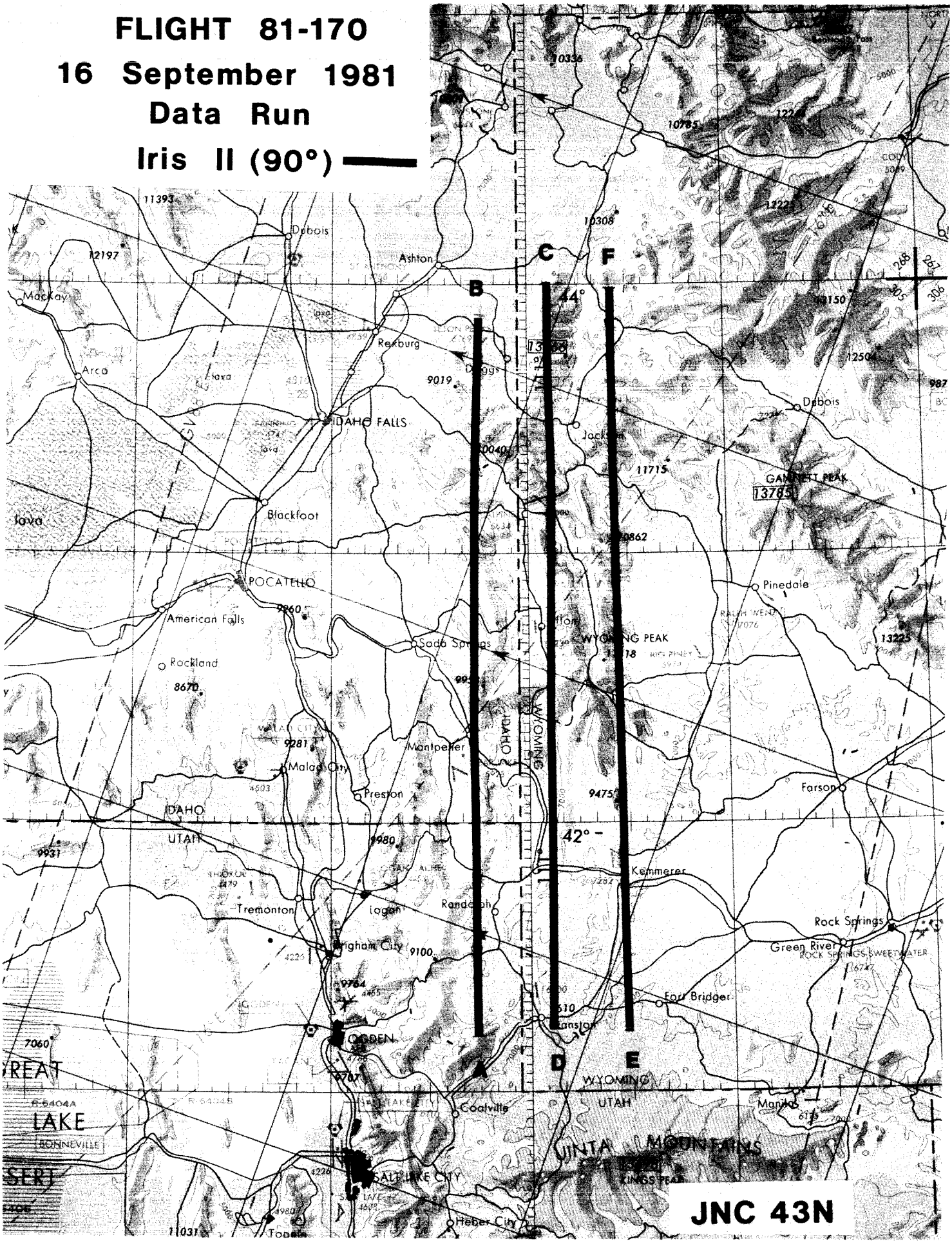
FLIGHT SUMMARY

81-170

This flight was flown in support of Flight Request #0900 (Weber, USFS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. IRIS II panoramic photography was collected over southeastern Idaho and southwestern Wyoming (see Track Map).

The area was predominantly clear with only minor cumulus and smoke obscuration encountered. Two frames were creased in processing, and no stepwedges were available for the film. No other processing or camera malfunctions were noted, and the quality of the data is rated excellent.

FLIGHT 81-170
16 September 1981
Data Run
Iris II (90°)



FLIGHT SUMMARY REPORT

Flight No: 81-171

Date: 11 September 1981

FSR No: 1552

Julian Date: 254

Sensor Package: Daedalus Multispectral Scanner (DMS)

Aircraft No: 4

Purpose of Flight: #0666 Support
Requestor: Lumb

Area(s) Covered: Southern Oregon

SENSOR DATA

Accession No:	---
Sensor ID No:	059
Sensor Type:	DMS (Configuration A)
Focal Length:	---
Film Type:	---
Filtration:	---
Spectral Band:	.38-1.10um 2.05-2.35um
f Stop:	---
Shutter Speed:	---
No. of Frames:	---
% Overlap:	---
Quality:	---
Remarks:	1.25mrad configuration Tape data only

FLIGHT SUMMARY

81-171

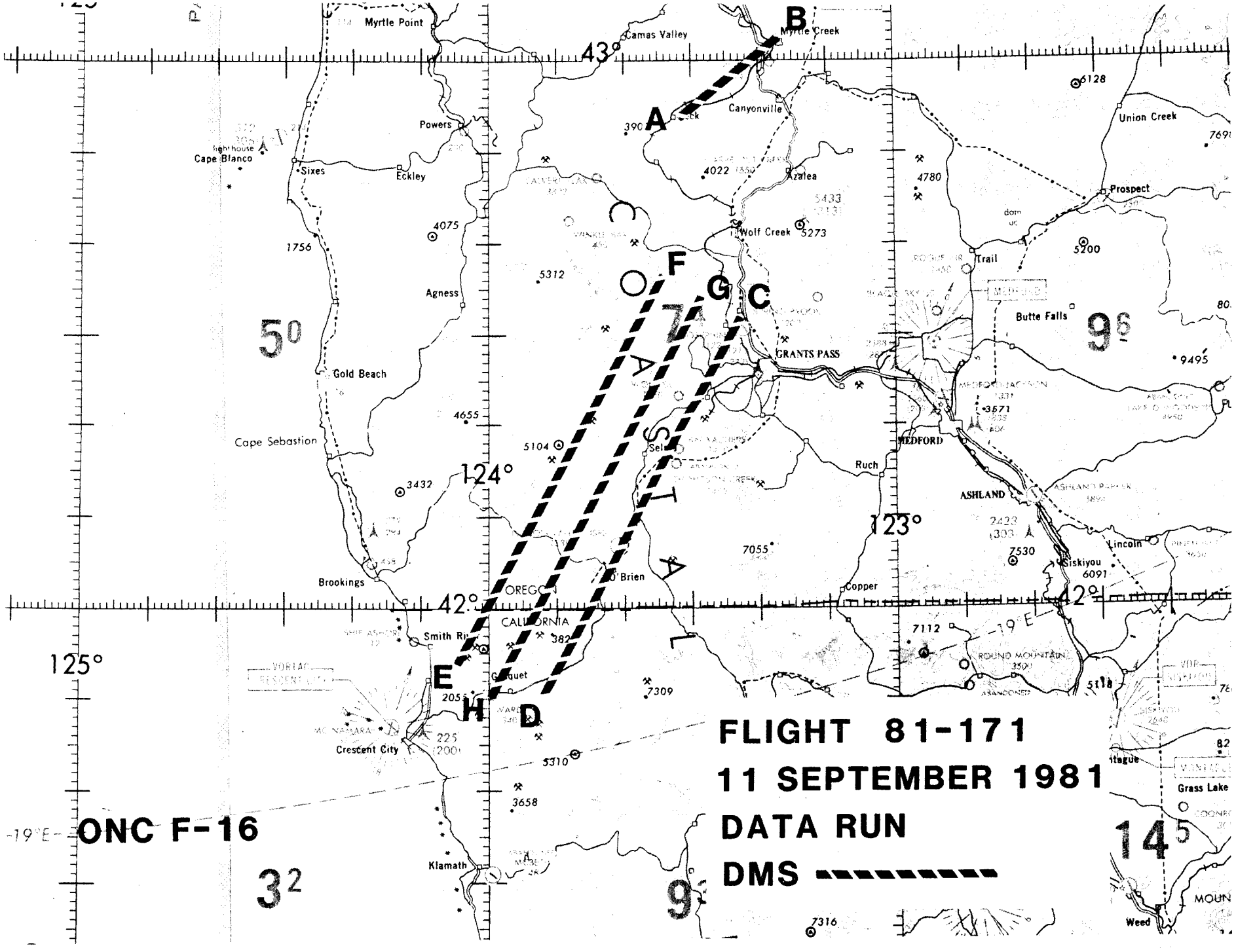
This flight was flown in support of Flight Request #0666 (Lumb, NASA-Ames) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner data was acquired over southern Oregon.

The Daedalus Multispectral Scanner is a twelve channel digital system modified to simulate some channels of the Thematic Mapper. The twelve channels cover the visible and near visible portions of the spectrum, with one channel in the thermal infrared region, depending on the configuration utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

IFOV	1.25mrad
Pixels/scan line	716
Scan angle	42.5°
Swath width	8nm
Scan rate	12.5 scans/sec
Resolution (from 65,000 ft)	80 ft

A Configuration:

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	2.05 - 2.35um
Channel 6	.60 - .65um	Channel 12	2.05 - 2.35um (High Gain)


A
B
C
D
E
F
G
H
Myrtle Point
Camas Valley
Myrtle Creek
Canyonville
Powers
Cape Blanco
Sixes
Eckley
Azalea
Wolf Creek
Union Creek
Prospect
Trail
Butte Falls
GRANTS PASS
Agness
Gold Beach
Cape Sebastion
MEDFORD
ASHLAND
Ruch
Brookings
O'Brien
Copper
Lincoln
Siskiyou
OREGON
CALIFORNIA
Smith River
Crescent City
Klamath
Grass Lake
Weed
43°
42°
124°
123°
125°
FLIGHT 81-171
11 SEPTEMBER 1981
DATA RUN
DMS
ONC F-16

FLIGHT SUMMARY REPORT

Flight No: 81-173

Date: 14 September 1981

FSR No: 1545

Julian Date: 257

Sensor Package: HR-732

Aircraft No: 6

Purpose of Flight: #0912 Support
Requestor: Weber

Area(s) Covered: Central Oregon

SENSOR DATA

Accession No:	03026
Sensor ID No:	039
Sensor Type:	HR-732
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .30B
Spectral Band:	510-900nm
f Stop:	8
Shutter Speed:	1/75
No. of Frames:	91
% Overlap:	60
Quality:	Excellent
Remarks:	---

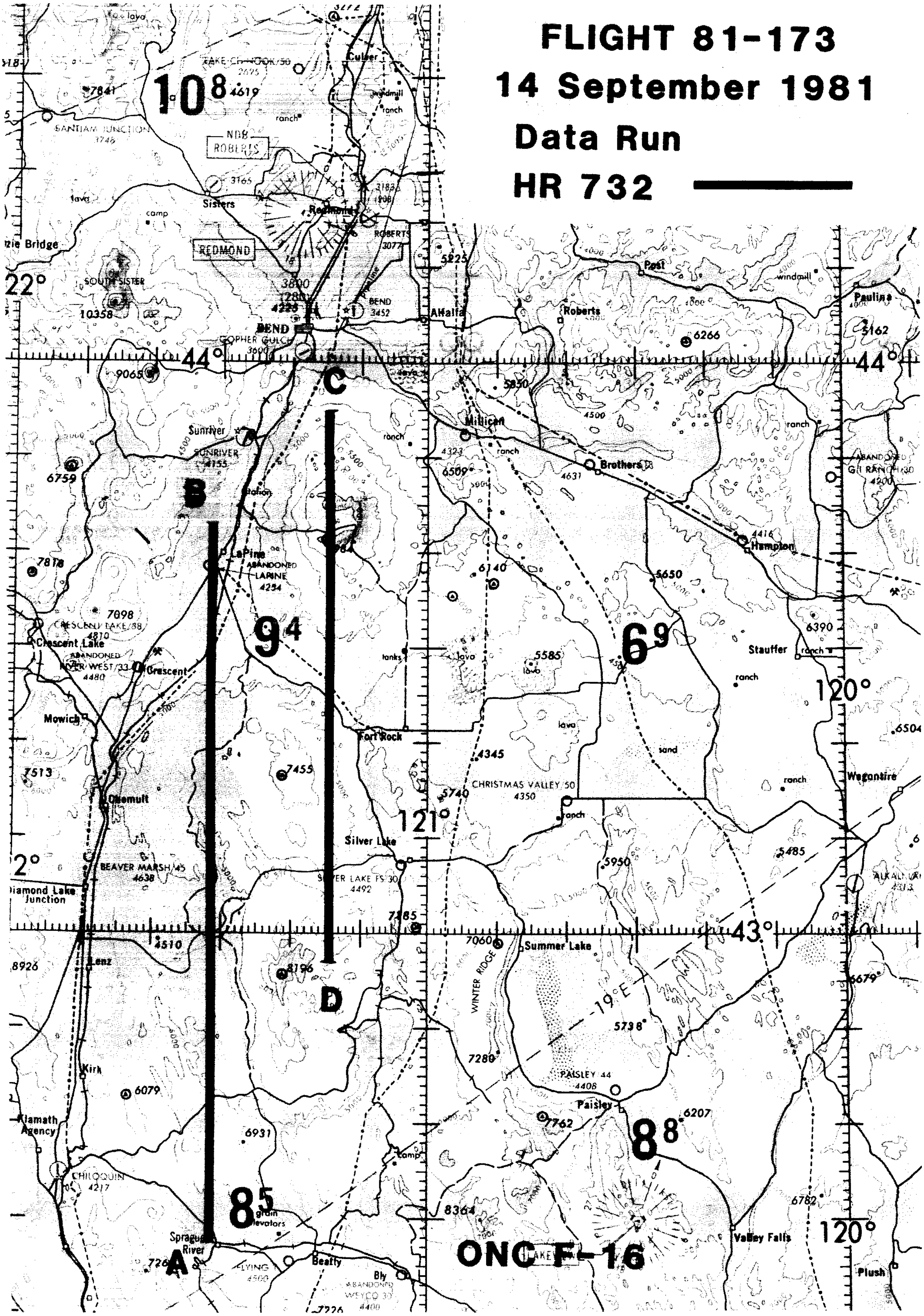
FLIGHT SUMMARY

81-173

This flight was flown in support of Flight Request #0912 (Crystal, USFS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Color infrared photography was acquired with the HR-732 camera over portions of central Oregon which had previously been obscured by cirrus undercast.

The entire area was cloud free with the exception of the last 3 frames on flight line C-D. No processing or camera malfunctions were noted, and the quality of the data is rated excellent.

FLIGHT 81-173
14 September 1981
Data Run
HR 732



FLIGHT SUMMARY REPORT

Flight No: 81-175

Date: 14 September 1981

FSR No: 1551

Julian Date: 257

Sensor Package: Daedalus Multispectral Scanner (DMS)
Aerosol Particulate Sampler (APS)

Aircraft No: 4

Purpose of Flight: #0666 Support
Requestor: Lumb
#0047 Support
Requestor: Ferry

Area(s) Covered: Northeastern Oregon

SENSOR DATA

Accession No:	---	---
Sensor ID No:	059	024
Sensor Type:	DMS (Configuration A)	APS
Focal Length:	---	---
Film Type:	---	---
Filtration:	---	---
Spectral Band:	.38 - 1.10um 2.05 - 2.35um	---
f Stop:	---	---
Shutter Speed:	---	---
No. of Frames:	---	---
% Overlap:	---	---
Quality:	---	---
Remarks:	1.25 mrad configuration Tape data only	Non-Imaging Sensor

FLIGHT SUMMARY

81-175

This flight was flown in support of Flight Requests #0666 (Lumb, NASA-Ames) and #0047 (Ferry, NASA-Ames) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner data was acquired over northeastern Oregon.

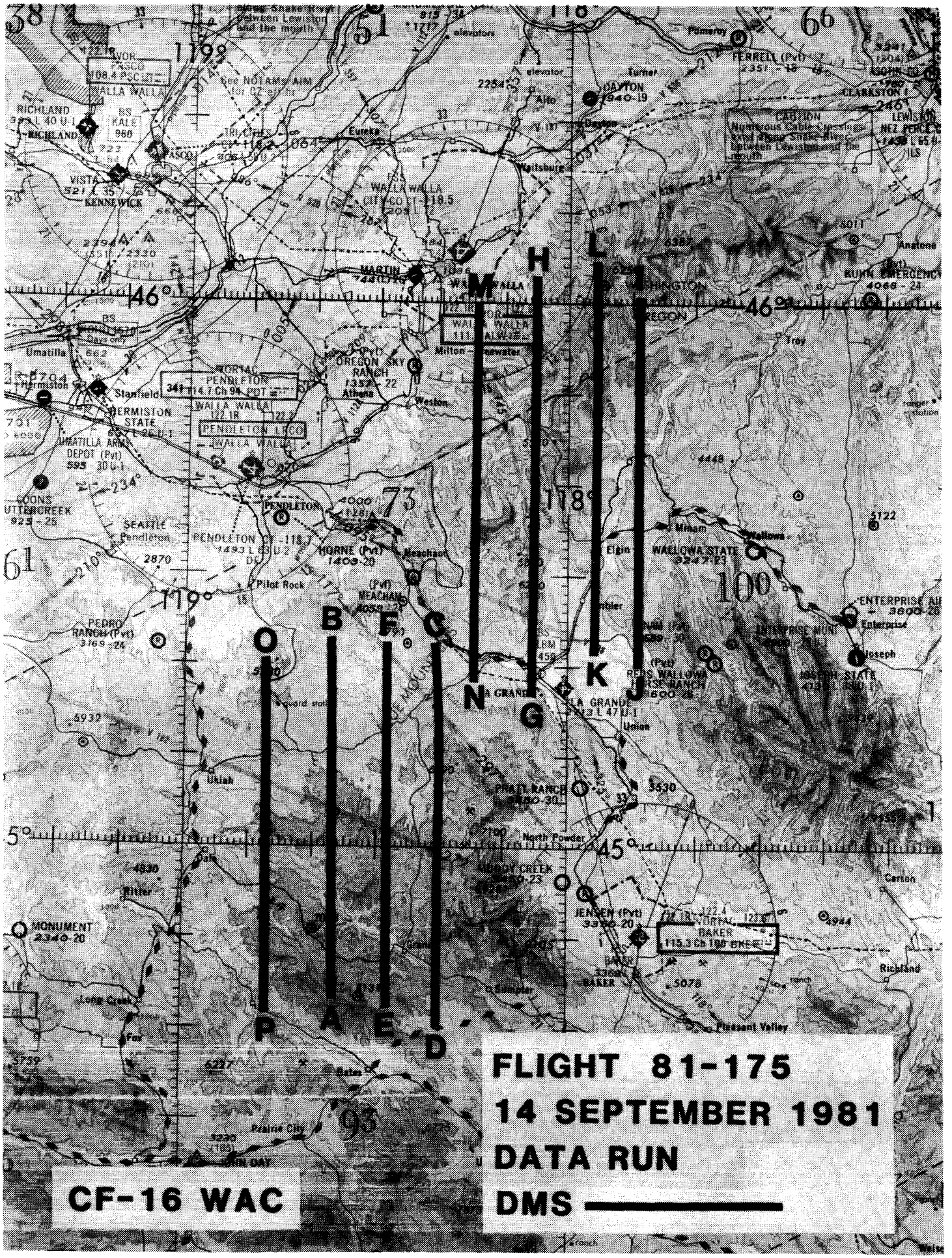
The Daedalus Multispectral Scanner is a twelve channel digital system modified to simulate some channels of the Thematic Mapper. The twelve channels cover the visible and near visible portions of the spectrum, with one channel in the thermal infrared region, depending on the configuration utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

IFOV	1.25mrad
Pixels/scan line	716
Scan angle	42.5°
Swath width	8nm
Scan rate	12.5 scans/sec
Resolution (from 65,000 ft)	80 ft

A Configuration:

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	2.05 - 2.35um
Channel 6	.60 - .65um	Channel 12	2.05 - 2.35um (High Gain)

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


H
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D
FLIGHT 81-175
14 SEPTEMBER 1981
DATA RUN
DMS
CF-16 WAC

FLIGHT SUMMARY REPORT

Flight No: 81-177

Date: 17 September 1981

FSR No: 1547

Julian Date: 260

Sensor Package: Itek IRIS II

Aircraft No: 6

Purpose of Flight: #0900 Support
Requestor: Weber

Area(s) Covered: Wyoming

SENSOR DATA

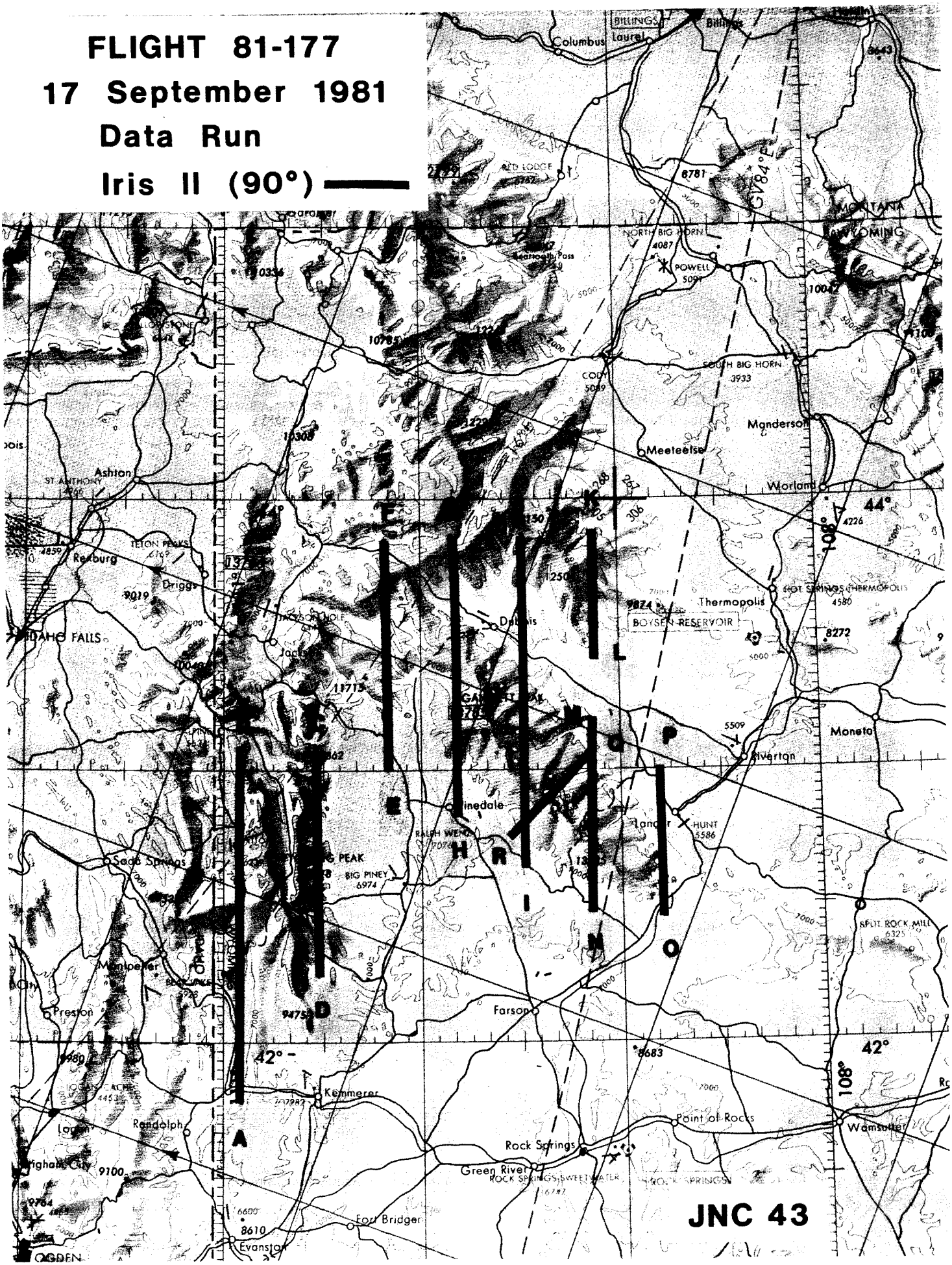
Accession No:	03028
Sensor ID No:	070
Sensor Type:	IRIS II
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .20C
Spectral Band:	510-900nm
f Stop:	3.5
Shutter Speed:	1/350
No. of Frames:	565
% Overlap:	60
Quality:	Excellent
Remarks:	90° FOV

FLIGHT SUMMARY

81-177

This flight was flown in support of Flight Request #0900 (Weber, USFS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Iris II panoramic photography was collected over the Wind River Range, Wyoming (see Track Map).

The entire area was cloud free. Data annotation was lacking for the first 20 frames, but began working shortly after data collection commenced. No other camera or processing malfunctions were noted, and the quality of the data is rated excellent.


FLIGHT 81-177
17 September 1981
Data Run
Iris II (90°)
JNC 43
Columbus
Billings
Laurel
RED LODGE
6781
MONTANA
WYOMING
NORTH BIG HORN
4087
POWELL
5099
SOUTH BIG HORN
3933
COODY
5089
Meeteetse
Manderson
Worland
Ashton
ST ANTHONY
Rexburg
TETON PEAKS
Driggs
9019
IDAHO FALLS
Jackson
Dubois
Thermopolis
HOT SPRINGS (THERMOPOLIS)
4580
BOYSEN RESERVOIR
8272
5509
Moneta
Riverton
Lander
HUNT
5586
Soda Springs
BIG PINEY
6974
SPLIT ROCK MILL
6325
Montpelier
Preston
Farson
8683
42°
44°
Kemmerer
Point of Rocks
Wamsutter
Rock Springs
Green River
ROCK SPRINGS-SWEETWATER
Randolph
Logan
Brigham City
9100
9764
Fort Bridger
8610
Evanston
OGDEN

FLIGHT SUMMARY REPORT

Flight No: 81-178

Date: 18 September 1981

FSR No: 1548

Julian Date: 261

Sensor Package: HR-732

Aircraft No: 4

Purpose of Flight: #0908 Support
Requestor: Weber

Area(s) Covered: Utah

SENSOR DATA

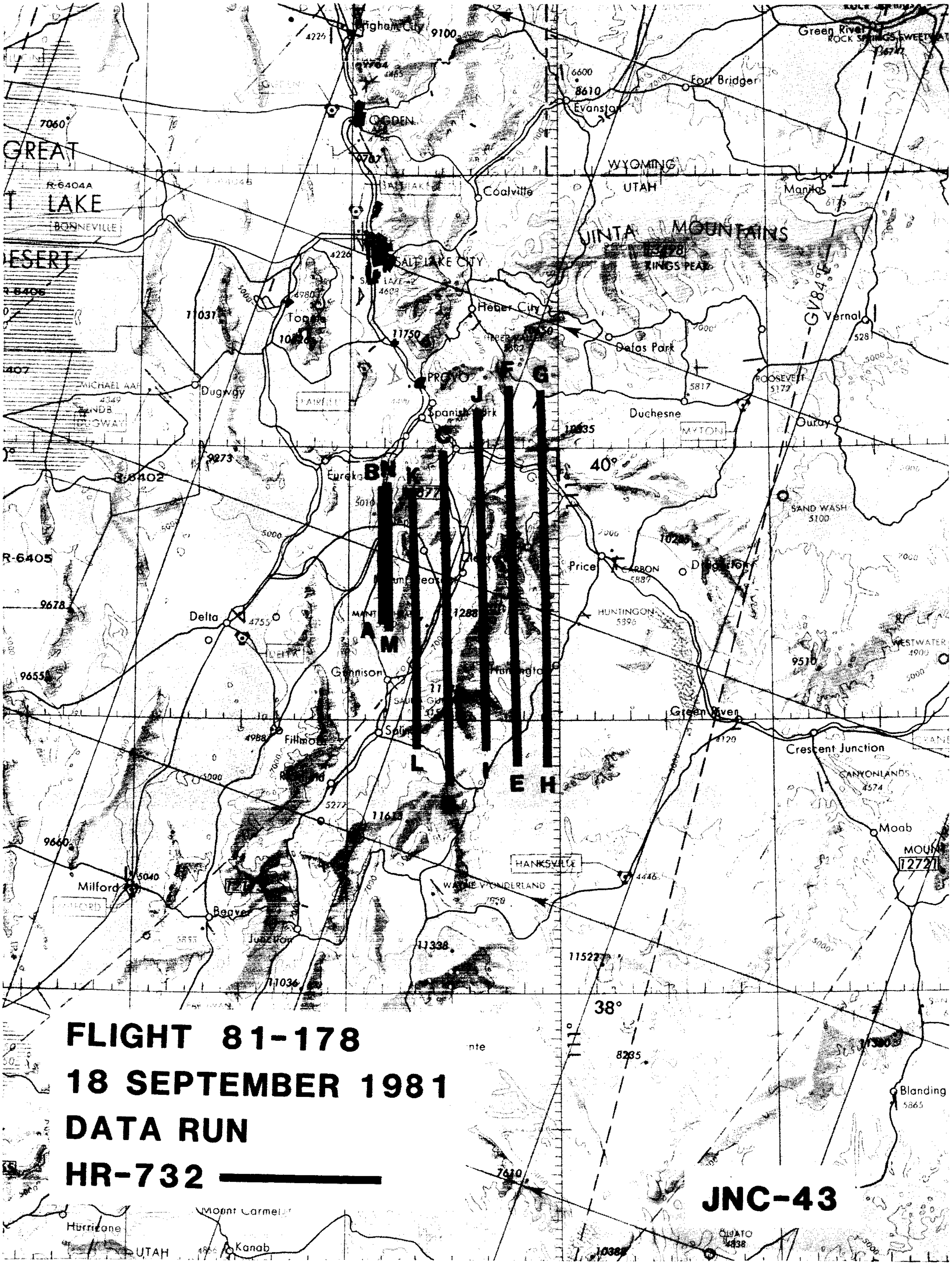
Accession No:	03029
Sensor ID No:	039
Sensor Type:	HR-732
Focal Length:	24" 609.6mm
Film Type:	High Definition Aerochrome Infrared, SO-131
Filtration:	CC .30B
Spectral Band:	510-900nm
f Stop:	8
Shutter Speed:	1/75
No. of Frames:	297
% Overlap:	60
Quality:	Excellent
Remarks:	---

FLIGHT SUMMARY

81-178

This flight was flown in support of Flight Request #0908 (Weber, USFS) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. HR-732 photographic coverage was obtained over central Utah (see Track Map).

The entire area was cloud free. No camera or processing malfunctions were noted, and the quality of the data is rated excellent.


FLIGHT 81-178
18 SEPTEMBER 1981
DATA RUN
HR-732
JNC-43
GREAT
LAKE
DESERT
BONNEVILLE
WYOMING
UTAH
UINTA MOUNTAINS
Brigham City
OGDEN
SALT LAKE CITY
Coalville
Evanston
Fort Bridger
Green River
ROCK SPRINGS
Manila
Heber City
Vernal
PROVO
Spanish Fork
Tooele
Dugway
Duchesne
Roosevelt
Ouray
Eureka
Delta
Price
Gunnison
Salina
Fillmore
Richfield
Green River
Crescent Junction
CANYONLANDS
Moab
Milford
Beaver
Junction
HANKSVILLE
WAYNE WONDERLAND
Blanding
Hurricane
Kanab
Mount Carmel
UTAH
40°
38°
A
B
C
E
F
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I
J
K
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N

FLIGHT SUMMARY REPORT

Flight No: 81-179

Date: 18 September 1981

FSR No: 1549

Julian Date: 261

Sensor Package: RC-10

Aircraft No: 4

Purpose of Flight: #0927 Support
Requestor: Shelton
#0047 Support
Requestor: Ferry

Area(s) Covered: Colorado

SENSOR DATA

Accession No:	03030	---
Sensor ID No:	033	024
Sensor Type:	RC-10	APS
Focal Length:	6" 153.17mm	---
Film Type:	High Definition Aerochrome Infrared, SO-131	---
Filtration:	CC .20B + 2.2AV	---
Spectral Band:	510-900nm	---
f Stop:	4	---
Shutter Speed:	1/100	---
No. of Frames:	116	---
% Overlap:	60	---
Quality:	Excellent	---
Remarks:	---	Non-Imaging Sensor

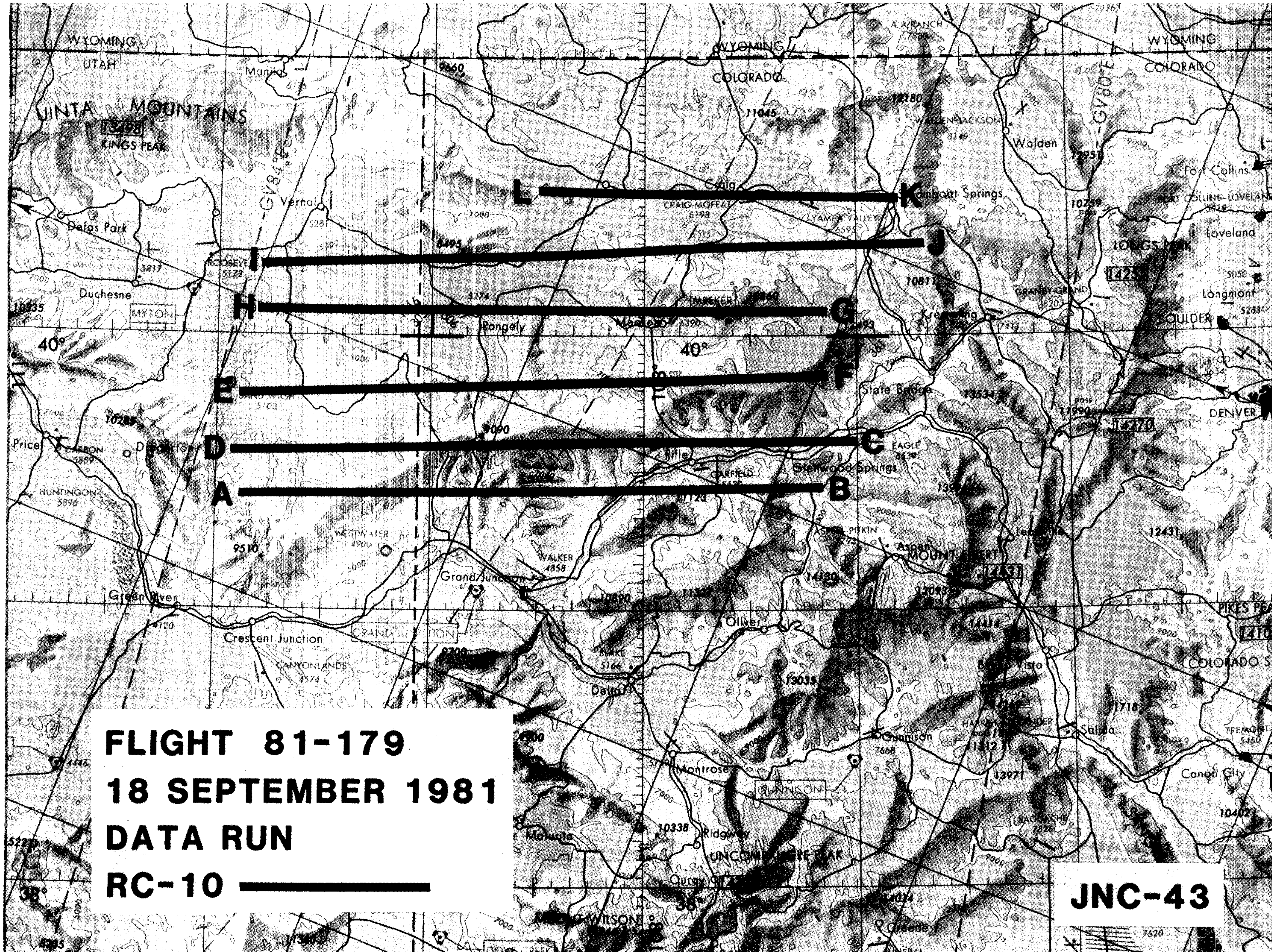
FLIGHT SUMMARY

81-179

This flight was flown in support of Flight Request #0927 (Shelton, EPA-Las Vegas) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. RC-10 photographic coverage was obtained over northern Colorado (see Track Map).

With the exception of some minor cumulus on two flight lines, the area was cloud free. No camera or processing malfunctions were noted, and the data is rated as excellent.

The APS has been developed and is operated by Dr. Guy Ferry of the NASA-Ames Research Center Atmospheric Experiments Branch. The sampler is a non-imaging sensor designed to gather high altitude dust particles for laboratory research.


FLIGHT 81-179
18 SEPTEMBER 1981
DATA RUN
RC-10
JNC-43
A
B
C
D
E
F
G
H
I
J
K
L
WYOMING
UTAH
COLORADO
UINTA MOUNTAINS
KINGS PEAK
Vernal
Duchesne
Price
Rangely
Meeker
Craig
Steamboat Springs
Walden
Fort Collins
Loveland
Longmont
BOULDER
DENVER
State Bridge
Rifle
Glenwood Springs
Aspen
Grand Junction
Green River
Crescent Junction
Delta
Montrose
Gunnison
Salida
Canon City
Ridgway
Ouray
COLORADO SP
PIKES PEAK
LONGS PEAK
MOUNT ELBERT

FLIGHT SUMMARY REPORT

Flight No: 81-180

Date: 25 September 1981

FSR No: 1550

Julian Date: 268

Sensor Package: Daedalus Multispectral Scanner (DMS)

Aircraft No: 6

Purpose of Flight: #0666 Support
Requestor: Lumb

Area(s) Covered: Tuscon, Arizona

SENSOR DATA

Accession No:	---
Sensor ID No:	059
Sensor Type:	DMS (Configuration A)
Focal Length:	---
Film Type:	---
Filtration:	---
Spectral Band:	.38-1.10um 2.05-2.35um
f Stop:	---
Shutter Speed:	---
No. of Frames:	---
% Overlap:	---
Quality:	---
Remarks:	1.25mrad configuration Tape data only

FLIGHT SUMMARY

81-180

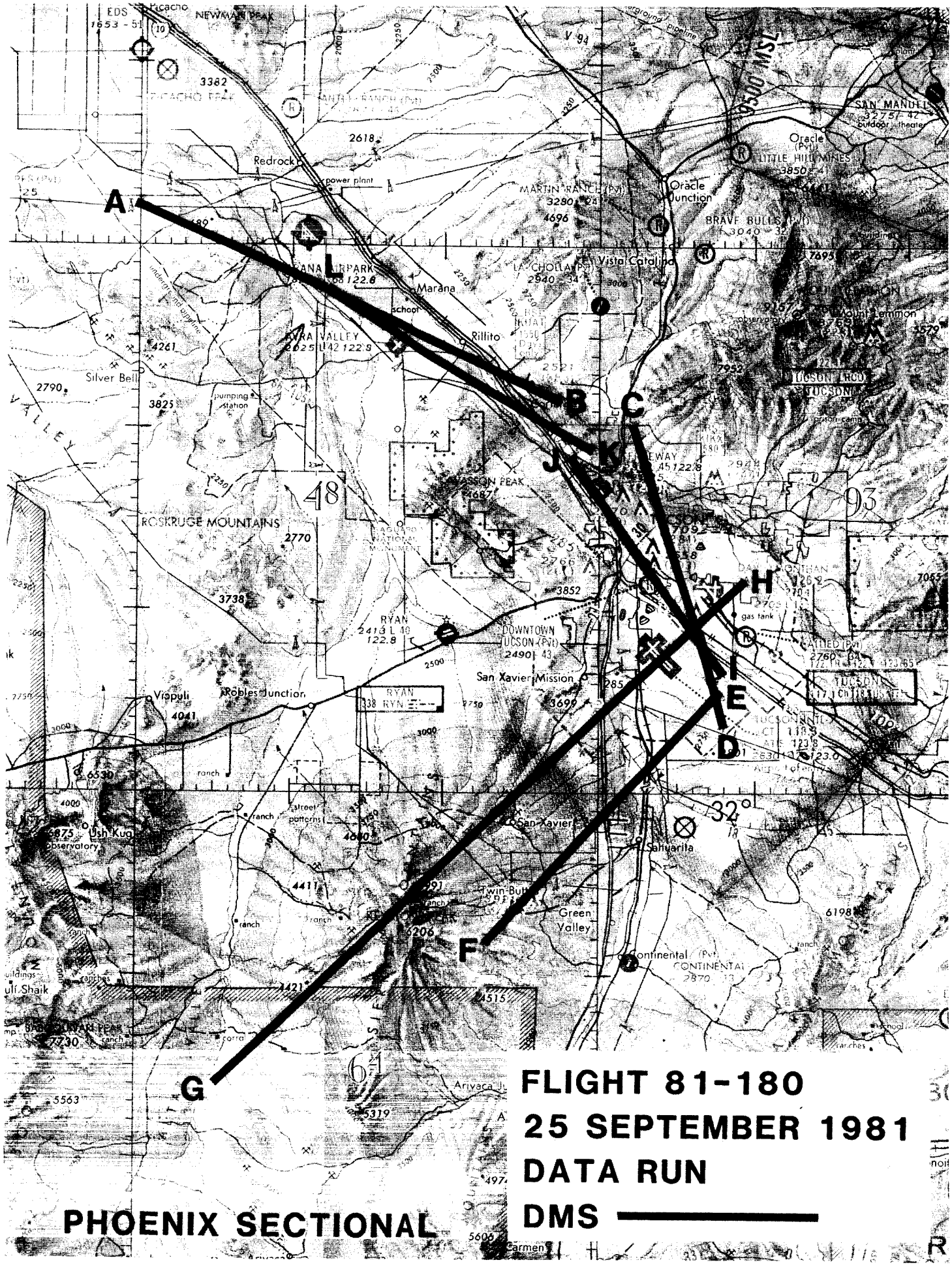
This flight was flown in support of Flight Request #0666 (Lumb, NASA-Ames) under the FY 1981 Airborne Instrumentation Research Program (AIRP) plan. Daedalus Multispectral Scanner data was acquired over Tuscon, Arizona.

The Daedalus Multispectral Scanner is a twelve channel digital system modified to simulate some channels of the Thematic Mapper. The twelve channels cover the visible and near visible portions of the spectrum, with one channel in the thermal infrared region, depending on the configuration utilized. Flight data tapes are ground processed to produce computer compatible tapes. Sensor specifications are:

IFOV	1.25mrad
Pixels/scan line	716
Scan angle	42.5°
Swath width	8nm
Scan rate	12.5 scans/sec
Resolution (from 65,000 ft)	80 ft

A Configuration:

Channel 1	.38 - .42um	Channel 7	.65 - .69um
Channel 2	.42 - .45um	Channel 8	.70 - .79um
Channel 3	.45 - .50um	Channel 9	.80 - .89um
Channel 4	.50 - .55um	Channel 10	.90 - 1.10um
Channel 5	.55 - .60um	Channel 11	2.05 - 2.35um
Channel 6	.60 - .65um	Channel 12	2.05 - 2.35um (High Gain)



FLIGHT 81-180
25 SEPTEMBER 1981
DATA RUN
DMS

PHOENIX SECTIONAL